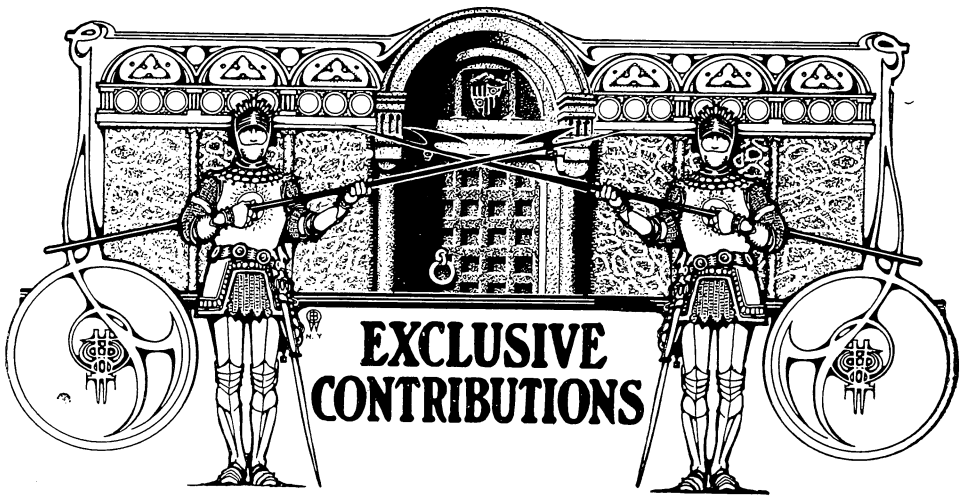


"A New York Graduate's Experience with a Western State Board."—An Official View.

By H. F. Hoffman, D.D.S., Denver, Col., Secretary of the Colorado State Board of Dental Examiners, 1901-2; Endorsed by A. E. Barker, president, Denver, Col.; B. A. McGee, treasurer, Denver, Col.; H. C. Rose, Leadville, Col.; F. H. Sutherland, Denver, Col.

I am in receipt of a letter from Dr. F. B. Spooner, calling my attention to a communication of his entitled, "A New York Graduate's Experience With a Western State Board," page 937, of the December, 1904, issue of Items of Interest, inviting me (the man referred to in the article as "Dr. Hoff,") to write a reply for publication in that journal and assuring me of space in said journal for that purpose.

I have seen two letters relating to this matter from the editor of Items of Interest, one stating that the article was published to open a discussion of State Board methods, admitting that he had no grounds for supposing the article to be true other than the statement of the author; and another letter written to Dr. F. B. Keyser, Boulder, Colorado (a dentist examined and licensed by the Board in question), declining to publish because of its personal tone, a critical review of Dr. Spooner's article written by Dr. Keyser in defense of the Board.

I have also seen letters from Dr. Spooner to members of the profession in Colorado, calling their attention to his article, with the statement that the article was written for the purpose of "holding up to ridicule

certain parties," and with the quest that they give to the affair "all the publicity" possible.

These letters make it clear that the article was not written to open a discussion on State Board methods; that it was not intended to be impersonal; that it was not free from sectional prejudice.

While a free discussion of State Board methods, conducted in a dignified, legitimate and broadminded manner, will be productive of much good and will be welcomed by all honorable Board members, it is improper to open such a discussion by the publication of an article full of personal abuse and sectional prejudice, having only the author's guarantee of its truthfulness, and bearing on its face the stamp of insincerity.

Dr. Spooner in his article admits his failure to pass the examination. The members of the Board believe that no explanation is necessary for refusing to grant a license to a man who failed to pass the examination required by law.

We have carefully read Dr. Spooner's article. We have also conscientiously recalled to mind Dr. Spooner's dealings with the Board. We have compared the statements contained in his article with the records and correspondence of the Board. We find Dr. Spooner's article to be such a network of the partially true and the wholly false, such a tangled mass of misquotations and misstatements, that the members of the Board of 1901-'02 feel themselves in no way obligated to deal with the matter further.

On the receipt of the above, a reply was sent to Dr. Hoffman expressing our entire willingness to publish this communication, but at the same time pointing out that it did not seem to really touch the vital point involved. The real question is: Was Dr. Spooner required or permitted to fill such a cavity as he described under the circumstances detailed, and was that considered by the Colorado Board a fair method of testing a man's qualifications as a practitioner? The withdrawal of the above was recommended, and in its place the substitution of a more specific reply. No answer to this proposal has reached us, but the following is a private letter, not designed for publication, though permission to publish is granted on condition that there be no eliminations. The language, therefore, is all to be attributed to Dr. Hoffman.—Editor.

Letter from Dr. Hoffman.

Denver, Colorado, January 10, 1905.

Dr. R. Ottolengui, Editor ITEMS OF INTEREST, 80 West Fortieth street, New York City, N. Y.

Dear Doctor: I desire to make a personal explanation of some things

relative to Dr. Spooner's visit to Colorado, and his article published in the December number of the ITEMS OF INTEREST.

Right here it will not be out of place for me to say that the Colorado Dental Law requires all applicants to pass an examination, and it further provides that only those who hold diplomas from reputable dental colleges are eligible for examination. The Colorado legislators were induced to enact this law for the protection of the public, and not to accommodate the dentists. Without entering into any argument at the present time regarding the wisdom of such a law, I may say that it was the aim of the Dental Board to carry out the provisions of the law, having in view the original object sought for by the passage of the act creating said Board.

Now concerning Dr. Spooner: He presented himself at my office, either the latter part of March or early in April, 1902, and received information as to the requirements for securing a license in this State. The examination was the 3d of June, two months later.

Dr. Spooner's explanation that his diploma was lost was evidently a lie, since he subsequently appeared to have no trouble to produce it. In the event that one's diploma has been lost, sufficient evidence of graduation would of course be accepted, but Dr. Spooner's reasons for not showing his diploma appeared to be nothing more than an indisposition to produce it, and a consuming desire to force us to accept his New York license as a substitute for this and most everything else; and subsequently it appeared that he desired also to substitute it for competency.

During the two months intervening between his arrival and the examination, Dr. Spooner was untiring in his efforts to have us waive the examination in his case and grant him a license, first because he held a "New York certificate," and that argument failing, because of his "inventions in dentistry."

Regarding the theoretical examination, we did not intend to make a farce of it, but we did attempt to have it as practical as possible and free from catch questions, which statement is borne out by the fact that most of the failures were among the new graduates, very few of the older practitioners ever failing.

Dr. Spooner enters into the subject of the anatomy examination at some length. I inclose herewith a copy of the questions given on anatomy at this examination. A comparison of these questions with Dr. Spooner's description of the questions shows that only one question tallies with his description. Either this discrepancy was intentional on his part or he has confused this examination with some other in which he may have also failed.

We lay no particular stress upon the result of his theoretical examination, for while he failed on four theoretical branches, he still would doubt-

less have been passed had his practical work been at all satisfactory.

Concerning the practical examination: There was very little difficulty in securing patients. While the Board desired the applicants to bring their own patients, we frequently found it necessary to assist in finding one. This part of the examination was held in the Dental College Infirmary, and patients were often secured from the College Clinic.

The requirements of the Board were that the cavity should be *reasonable* and we frequently rejected cavities because we believed them too difficult for the test under such conditions.

The Board was unanimously of the opinion that the cavity which Dr. Spooner attempted to fill, was a fair and reasonable cavity for such a test. However, he was given permission to find another patient for a last trial, and he was told that any reasonable cavity would be accepted in any reasonable time, but that should he desire to avail himself of the opportunity to secure what in his opinion would be a suitable cavity, he must exhibit the preparation of the cavity before inserting the filling. He did not see fit to take advantage of this offer, and his last attempt to fill the cavity, was, as he admits, a failure. In addition he took his own time, and was not subject to any annoyance during the operation.

He appeared at the clinic in the morning with no apparent preparation for the work. He occupied his time until nearly eleven o'clock in going from one examiner to another urging them to let him off on the clinic work, using the same reasons which he had used previously in his efforts to avoid the entire examination. He showed every intention of keeping this up all day, and literally bluffing his way through until towards eleven o'clock it was explained to him in very certain language that the clinic work would be required of him, and that he had better go to work.

He was not required to be through at twelve o'clock nor were the others.

Dr. Spooner's present belief that such a cavity could be properly filled only with cement, corroborates our judgment in refusing him a license.

I did not know when he would present his last filling for my inspection. He came to my office with it while I was at lunch. Naturally he had to wait until I returned. I examined the filling and told him to show it to Dr. McGee. He was persistent, and finally obnoxious in his efforts to have me tell him that he had "passed" on the filling without the necessity of his going to Dr. McGee. I took some pains to explain to him that as he had previously understood, the filling was to be shown to both of us, that I could not assume the entire responsibility even if I wished, and I finally told him that I did not consider the filling passable anyway.

His conduct with Dr. McGee was similar.

His trip "down stairs," and "away to the other side of Denver" and

to the "top of a building," must have imposed great hardship upon him, since both buildings are equipped with elevators and are but four blocks apart (three of these blocks being short), the streets intervening being paved, sidewalked and traversed by two car lines.

Dr. Spooner did not write for his returns, after waiting a "month or six weeks." The examination closed June 5th. He was notified of the result on the 21st, his acknowledgment of the same being dated the 23d of June, which was the first letter received by the Board from Dr. Spooner.

He called on me in September at which time the conversation took place in which he reports me as saying, "excuse me." However, he failed to report the entire conversation, but gives enough to show that he was endeavoring to have me assure him a license, upon which comment is needless.

After failing in this effort he came out with a plain offer of money for a license. It was then that I asked him to excuse me, and I also believe I shut the door in his face.

The day following the examination he also offered money to another Board member, finishing his remarks with the suggestion that it might be used to help us out in our work.

Dr. Spooner was treated with uniform kindness, courtesy and respect by the entire Board just as long as he showed a desire or willingness to appreciate such treatment, after which plain Anglo-Saxon was used.

Now about the question of seniority of which Dr. Spooner makes so much. The members of this Board had been uninterruptedly engaged in the practice of dentistry as follows:

A. E. Barker, since 1887; B. A. McGee, since 1887; H. C. Rose, since 1867; F. H. Sutherland, since 1869, and myself since 1897.

Dr. Spooner commenced the study of dentistry at the age of forty-three in the fall of 1893, graduating in 1896, from which you will see that in dentistry he was but one year my senior, and that I was by many years the junior member of the Board. However, I do not consider that any respect is due Dr. Spooner from myself on the score of seniority in dentistry, as I commenced the study of dentistry four months prior to Dr. Spooner. My entire time has since been devoted to it, while Dr. Spooner has not been in active practice constantly.

I accompany this letter with complete copies of all letters from Dr. Spooner and myself relative to this subject.

Regarding the hypothesis that the article in question is impersonal, one dentist in Colorado writing to me says: "Not a practitioner in Colorado but knows that the Dr. Hoff referred to is yourself, and the blonde gentleman is Dr. Barker." Dr. Spooner may have made you

believe that his article was impersonal, but it was not his intention to have it so, a fact which he subsequently showed by his correspondence.

This article is so ridiculous and illogical on its face that we can only infer as a reason for its publication either that Dr. Spooner had relations with the Consolidated Dental Manufacturing Company of which we are unacquainted, or that you did not read it previous to its publication.

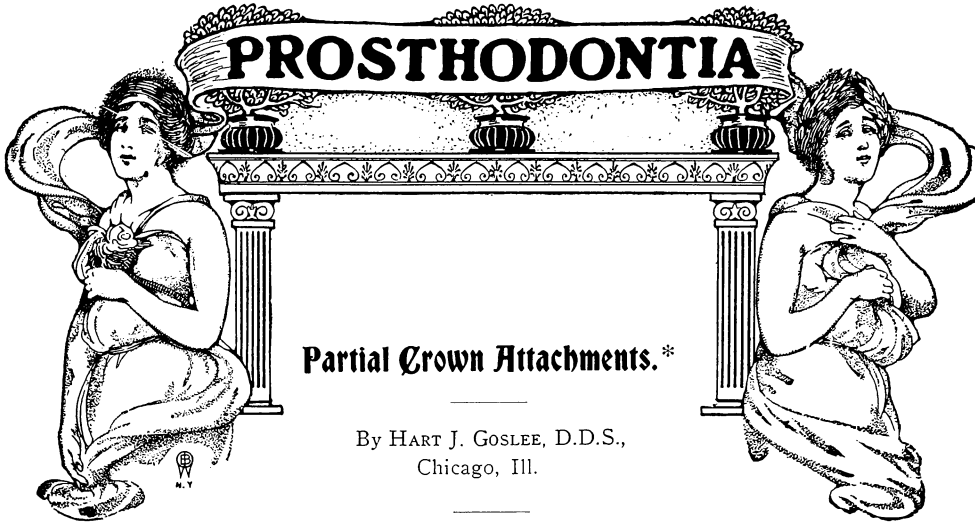
I enter into this subject at some length merely to show you our position, and that you might see how the appearance of Dr. Spooner's article in your journal looks. If there are some conclusions which you do not like, you must remember that they are not necessarily unkindly. I have merely tried to be honest with you, and this is not intended for publication, but is merely a personal explanation to you. You can readily understand why we do not care to enter into a public discussion with such a man, but I feel that some explanation is due to you.

You are, of course, at liberty to publish this letter if you wish, provided you publish it entire, Very truly yours,,

H. F. HOFFMAN.

In reply to the above it may be said that Dr. Spooner had no relations with the editor, to whom he was as personally unknown as are members of the Colorado Board. Moreover the Consolidated Dental Manufacturing Company knew nothing of Dr. Spooner's article until it appeared in print. Again be it said, the article *was* read by the editor before it was printed. Why was it accepted? Because the pen picture of the man's experiences, and especially the detailed account of the cavity which he was permitted to fill with gold, gave the impression either that Dr. Spooner was telling the truth, at least in that respect, or else that he has capabilities as a writer of fiction which would indicate that he is wasting his time filling teeth. There was, therefore, an important principle involved, a discussion of which will be found in the editorial in this issue.

In the correspondence forwarded by Dr. Hoffman are letters from Dr. Spooner, promising the Colorado Board space for a reply in ITEMS OF INTEREST. Whilst this magazine is an open forum, and its pages equally accessible to all for discussion of matters of importance to the dental profession, it was somewhat presumptuous for Dr. Spooner to promise away our space.



Partial Crown Attachments.*

By HART J. GOSLEE, D.D.S.,
Chicago, Ill.

(Indications and Contraindications. Application. Plate and Pin Attachments: Adaptation, Pins, Reinforcement. Groove Attachments: Indications, Preparation of Natural Crown, Construction. Inlay Attachments: Indications, Requirements, Cavity Formation, Construction. Telescope Attachments: Indications, Possible Objections, Possible Advantages, Construction. Occlusal and Lingual Supports: Occlusal Supports, Indications, Application. Lingual Supports: Indications, Application.)

Ranking next to the open-face crown from the viewpoint of general usefulness may be considered that class of attachments which, while including nearly all forms of "plates," "inlays" and partial crowns, may be generally designated under the classification of partial crown attachments.

This class of attachments differs from the open-face crown in that as a general rule the telescope principle is not used, and hence the natural crown is not completely encircled with a band. Thus only the lingual or linguo-occlusal surfaces are usually involved, and the fixation of the piece is secured to them by various mechanical means.

This avoids the necessity for the display of any gold upon the labial or buccal surface, and thereby makes such attachments *practically invisible*, which is always a desirable feature as applied particularly to the eight or ten anterior teeth, when it may be accomplished by means which will offer a reasonable degree of permanency.

The usefulness of any attachment of this kind, however, depends

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largely upon the same favorable indications for their employment, and the same degree of accuracy in their adaptation as has been mentioned in connection with open-face crowns.

For this reason, while their judicious employment and skillful adaptation enables them to serve a sphere of usefulness, like many other methods, and so-called systems, they are by no means to be regarded as being universally applicable, and hence they will be successful only in proportion as they may be judiciously used.

Indications and Contraindications.

The indications for any of these special forms of attachments, in general, would usually confine their application to the crowns of such teeth as may offer opportunity for accurate adjustment, as a means of supporting one or perhaps both ends of *small* bridges; of supporting *one* end of larger bridges when a crown is used on the other end, or of supporting a single missing tooth.

As compared with the possible longevity of a well-adapted full crown, however, such attachments, no matter how conservatively employed or skillfully adapted, and while involving a less radical procedure, are usually to be regarded as being of a more or less temporary nature, and yet instances of great permanency have been recorded.

Application.

While innumerable methods of obtaining suitable mechanical fixation to the natural crown have been suggested, many have proven impracticable, and hence only those which are regarded favorably will be considered. In the application of any of them, however, at least *three* cardinal features must be observed: *First*, the supporting natural crown must be so prepared as to admit of accurate adjustment to it and to the occlusion, and to afford adequate means for mechanical retention; *second*, this preparation must include an observation of the requirements of *parallelism*, which will admit of the ready adjustment of the structure of which it will subsequently be only a part, and *third*, the attachment must possess sufficient inherent strength to insure stability.

Plate and Pin Attachments.

As applied exclusively to the six anterior teeth, and particularly to the incisors, perhaps the best and most expedient attachment of this kind embraces the adaptation of a simple plate with supporting pins to the lingual surface of the natural crown.

Adaptation.

In this procedure the tooth should be properly prepared, and a plate of 34 gauge pure gold then closely adapted to the entire lingual surface from just slightly beneath the cervix to the extreme incisal edge, and just far enough around

the approximal surfaces toward the labial to bring the margins beyond the contact point, or to a self-cleansing area. It will be observed at once that this will require that these surfaces be so prepared as to admit of ready removal and replacement of the plate without danger of distorting its shape, a precaution very similar to that required for an open-face crown, as previously illustrated.

Pure gold should be employed because of the facility with which it may be closely adapted to the tooth, and the adaptation may be accomplished either by burnishing or by swaging on a fusible metal model or die of this portion of tooth, as may be preferred.

When the plate has been thus adapted and properly trimmed, anchorage to the tooth may be obtained by drilling two parallel pits into the

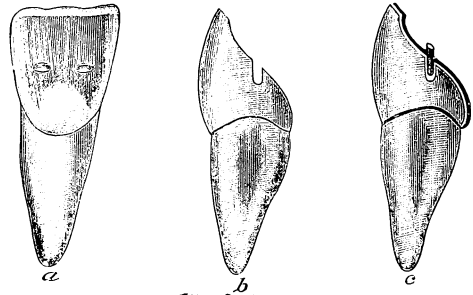


Fig. 248

center of the lingual surface on each side of the pulp (Fig. 248, A), just far enough to insure stability in the attachment, or as deep as possible without encroaching upon the latter (Fig. 248, B.), with a round burr about the diameter of 18 or 20 gauge (B & S) wire.

The plate should now be adjusted to position and perforated with a small, pointed instrument immediately over these pits, and pins made from iridio-platinum wire of the same size as the burr should be forced to place through the plate and into the pits (Fig. 248, C). The relation between pins and plate should now be temporarily sustained with hard wax or temporary stopping, and the parts then carefully removed from the tooth and invested, using only enough investment material to cover the pins and inside of plate. When the investment has hardened the temporary medium should be warmed and removed, and the attachment then well reinforced.

Pins. Since it is obvious that much of the stability of such attachments is dependent upon the integrity of the pins, and upon their close adaptation to the pits, the latter should be made with a burr of a diameter about the same as that of the wire of which the pins are made, in order that they may fit closely, and iridio-platinum wire should be used because of its strength.

Instead of using wire, however, a stiff and even more accurate fitting pin may be made by tightly packing any of the *crystal* golds into the pits after perforating the plate, and with it in position until they are completely filled and the gold overlaps the perforations, as suggested by Dr. J. E. Keefe. The overlapping of the gold upon the plate admits of the detachment of the whole, when the surface should be slightly reinforced with solder, without investing, in which procedure the pins will become so filled with solder as to render them stiff and solid, after which the

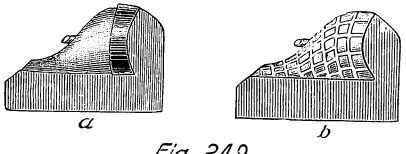


Fig. 249.

attachment should be invested and the necessary additional reinforcement then given to the whole surface.

Reinforcement. Next to the strength of the pin, the stability of such an attachment will depend largely upon adequate reinforcement and stiffness. While 22 or 20K. solder, alone, may answer this purpose, such results may be obtained to the best advantage *whenever the plate extends around to cover the approximal surfaces* by carefully fitting to the *cervical end* a rim of clasp-metal about 30 gauge (Fig. 249, A), and after attaching it to the plate then completing the reinforcement over the entire surface as uniformly as possible with a solder of sufficiently high grade to preclude subsequent re-fusion in the final assemblage of the parts.

It has been recommended that the entire reinforcement of such attachments be made by laying small pieces of clasp-metal over the surface, in consecutive layers, and uniting them with solder until the whole surface is flush and smooth (Fig. 249, B), which may be done with or without investing. This procedure gives a uniform thickness and a desired stiffness to the whole attachment, but as elasticity and stiffness is required mainly at the cervical end, in order that it may grasp the tooth firmly, the former procedure is regarded as the better and simpler process.

In any event the reinforcement must be adequate and more or less uniform, and the use of clasp-metal is imperative as a means of imparting a degree of strength and elasticity such as it not to be obtained by the use of solder alone. When such reinforcement has been made the attachment should be removed from the investment, cleaned in the acid bath, tried to position upon the tooth and then finished to the point of polishing, as usual.

Groove Attachments.

Under the classification of *groove attachments* will be considered such procedures as require a more radical preparation of the natural crown for the purpose of obtaining increased mechanical fixation of the attachment.

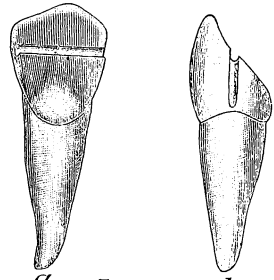


Fig. 250.

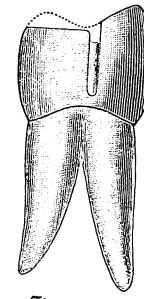


Fig. 251.

The method commonly known and previously described as the "Staple" crown, together with what seems to be subsequent modifications of the original principal, such as are suggested by Dr. C. L. Alexander, of Charlotte, N. C., and Dr. J. P. Carmichael, of Milwaukee, Wis., may often be successfully employed.

Indications.

While this style of attachment is sometimes recommended as being applicable to almost any tooth in the arch, a conservative employment would seemingly confine its use *mainly to the cuspids and bicuspids*, or, as previously mentioned, to those teeth, the shape and normal proportions of which are favorable, and will readily admit of the required preparation.

Preparation of Natural Crown.

The preparation of the natural crown for the reception of such an attachment comprises cutting a groove across the lingual surface of the six anterior teeth at about the incisal one-third (Fig. 250, A), and then root-wise on the approximal surfaces to a close proximity with the gum line (Fig. 250, B).

These grooves form the mechanical retention, and should be cut just deep enough to afford a secure fixation of the attachment when in position, and must be placed in such relation to each other as to admit of the removal of the piece when closely adapted to them. Also, when two such attachmens are to be used in one structure, an observation of the requirements of parallelism must be closely observed, for which purpose measuring instruments have been designed.

In making the grooves in anterior teeth, if adjacent teeth are present, *ample* separation must first be obtained, and it should then be noted that the occlusion of the opposing teeth will, or is made to, accommodate the presence of the attachment when in position. This may, of course, require either that the lingual surface of the tooth or the incisal ends of the

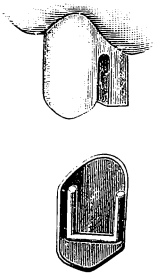


Fig. 252.

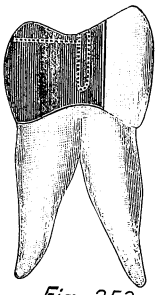


Fig. 253.

opposing teeth be sufficiently ground to afford such accommodation, as previously illustrated in Fig. 245.

With a thin knife-edge stone a groove should now be cut from the mesial to the distal surface at about the point indicated, and then at right angles from this groove the approximal grooves should be formed with a short cross-cut fissure burr.

In bicuspids or molars ample space must also first be gained, the lingual cusp then ground down to afford a flat, square base for the attachment, and the occlusal groove then cut up close to the buccal cusps, this to be followed in turn by the cutting of the approximal grooves. (Fig. 251.)

While these attachments are, of course, more or less applicable to the molar and incisor teeth, the proportions of the crowns of these teeth are usually so unfavorable as to demand considerable mutilation in effecting the required preparation for an accurate adjustment, and indeed, for

this reason it will doubtless be found that the process will most often be restricted to the upper cuspids.

Construction. In the original so-called "Staple" method a piece of round platinum wire was first closely adapted to the groove, and thin, pure gold then burnished over this and trimmed to the desired outline of the crown. The two were then removed, and the wire "staple," remaining in the depression formed in the gold by it, was attached with solder, after which it was invested and properly reinforced. (Fig. 252.)

In the more modern application, however, the wire staple has been abandoned, and the gold is burnished directly down into the groove. To prevent tearing and to facilitate the removal of the gold the margins of the grooves should be slightly beveled. A ribbon of pure gold about 38 gauge should be placed around the tooth and first carefully burnished into the grooves with a suitable instrument. When well adapted to these points, it should be trimmed and carefully adapted to the entire lingual and approximal surfaces, as described in the former method, in which the procedure may be facilitated by tying it to the tooth with a ligature.

If the gold is perforated in being adapted to the grooves such places should be filled in with any of the crystal golds, and when the adaptation is thus completed the attachment should be carefully removed.

As a provision against the possible penetration of solder to the under surface, in the event of perforations, it is well to paint this surface with a thin coat of whiting and alcohol just previous to investing, after which the attachment should be reinforced in the manner previously mentioned in connection with "plate and pin" attachments. While this may be done without investing, it is nevertheless always a more reliable procedure, and also affords opportunity for the proper adjustment of the cervical rim of clasp-metal. After this rim is attached with solder, the grooves should be filled with small pieces of clasp-metal, and the whole then uniformly reinforced with a grade of solder which will not be re-fused in the final assemblage of the parts. The completed attachment and its relation to the supporting tooth is shown in Fig. 253.

While fusible metal models may be obtained from gutta-percha or modeling compound impressions of the tooth, and used in the preliminary adaptation, the *final* adaptation should always be done directly upon the tooth itself.

(*To be continued.*)

Fixed Bridgework.*

By Hart J. Goslee, D.D.S., Chicago, Ill.

A variation of typical cases in which the application of the open-face crown would be more or less practicable are illustrated in Fig. 247.

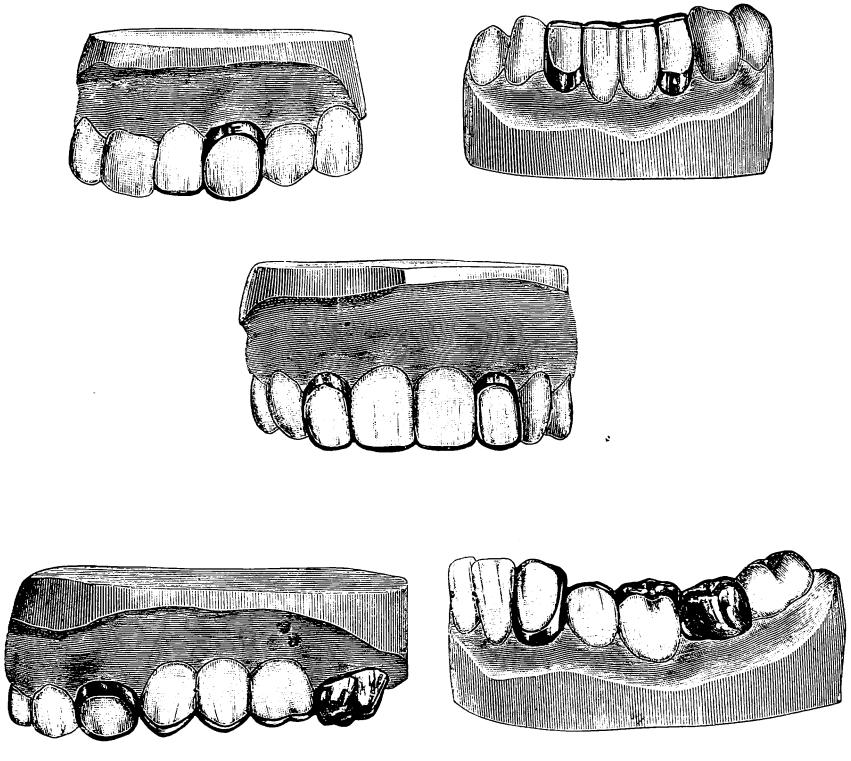
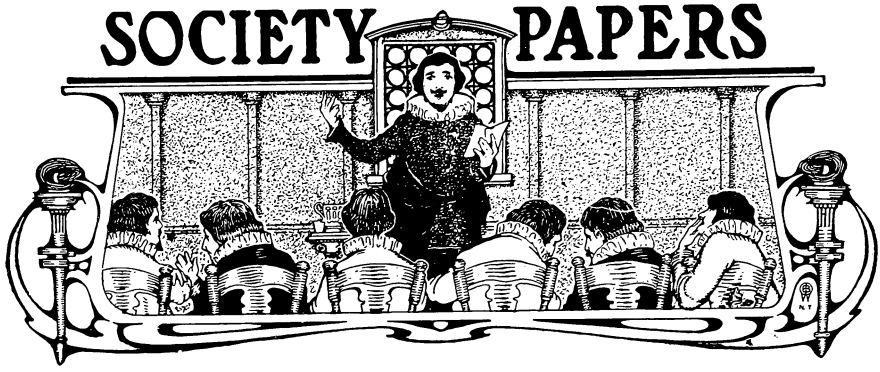


Fig. 247.

In these cases, it will be observed that such an attachment is used to support one or both ends of small anterior bridges, but only the anterior end of those involving the posterior teeth.

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N. B.—This matter was accidentally omitted from January quota.—Editor.



The Advance of Porcelain Art in Dentistry.

By N. S. Jenkins, D.D.S., Dresden.

Read before the New Jersey State Dental Society, July, 1904.

Five years ago I had the honor of advocating, before this renowned Society, the use of porcelain, for inlays, which could be fused in a gold matrix. At that time porcelain restorations were generally regarded as exceptional operations, which were of questionable utility and, naturally, made chiefly by men who had a taint of that madness to which genius is proverbially akin. Long before, Land and Rollins had shown what possibilities were to be found in porcelain work, and, at that very moment, such men as Capon, Head and Reeves were voices in the wilderness calling upon brilliant operators in gold to repent of some of their holiest things. The time was ripe for change. The manipulation of gold had become so well defined and the material itself, as well as the instruments and machines through which it could be worked, had become so perfected, that it was only a question of endurance on the part of operator and patient to produce monuments of skill and utility. The golden age of dental practice was, in every sense, a brilliant age. The discovery of the cohesive property of gold and the application of the power of the mallet, followed by the invention of the rubber dam and the dental engine, placed in our hands the means of achieving results which were before undreamed of. There can be now but few practitioners remaining who first learned to fill teeth with non cohesive gold. Those few will remember with what amazement and delight they first saw a filling made with cohesive gold, and with what hopefulness they engaged in the new method of operating. They saw a new heaven and a new earth, and many of them became famous for the unsurpassable quality of their operations, having had the immense advantage of learning to work gold under adverse circumstances, which prepared them for the simpler method. The modern man, with his elaborate edu-

cation, his extended literature, his broad association with his colleagues and his wealth of mechanical facilities, can but inadequately conceive the value of the triumphs which were achieved, in daily practice, by the gifted and resourceful practitioners of two generations ago. There was no limit to their ingenuity. It was accepted, as a cardinal article of faith, that gold was the only perfect material for filling teeth, and through this belief its manipulation was brought to such perfection. It was necessary that dentistry should pass through this strenuous period. It is not conceivable that the many enduring mechanical devices, and the prodigious development of the inventive faculty which characterized this era, could have been produced except by the necessity of making such an extensive use of gold and regarding its skilful manipulation as the supreme test of ability. At last, however, the practical limit of improvement seemed to have been reached. It had become possible to teach the ordinary student, in a comparatively short time, how to make reliable operations in gold. The discoveries in bacteriology and the advance in every branch of science caused a revision of ancient theories and revolutionized the training and the character of dentists. As in every other advancing profession, the field became broadened. The son of the eminent practitioner became a better educated man than his father, and obtained, through the happy chance of his superior early advantages, that breadth of view which had come to his sire only through years of experience.

Esthetic Dentistry Demanded.

With the development of the new dentist, synchronized the popular demand for gentler, more scientific and more artistic treatment. Everywhere there was a growth of wealth, luxury and good taste, which gave an appreciative clientele to the aspiring practitioner. The time had come, not for the complete overthrow of gold, an event, perhaps, never to be expected, but for greatly modifying and restricting its use. It was seen that what had been advocated, years before, by men who saw farther than their fellows, was no mere fad, but a field of unlimited possibilities, and, when I had the honor to present to you a system which brought porcelain work within the range of every good dentist's ability, it was only an incident in the great march of progressive ideas which were swaying the whole profession.

At that time the gifted men who were advocating the cause of porcelain in America had but begun their crusade and their followers were few. Now their words have penetrated into the uttermost parts of the earth and thousands do them reverence. There is today no gathering like this throughout the world where porcelain, its methods and its advantages, does not form one of the chief subjects of consideration. Every day comes, from some practitioner, some new suggestion for the improvement of

methods, or from manufacturers, some new refinement of material to add to the usefulness of this important branch of practice. Every day the public becomes more familiar with the advantages of this work, and every day the demand for it increases.

We are therefore justified in believing that this method of practice is but at the beginning of its career. The experience of the masters in porcelain restoration shows the practicability of its almost universal application. It is a mere matter of mechanics to adapt it to the most obscure cavities. Work like that of Le Cron and Price, teach us how to obtain the greatest strength in fusing. Experience and simple common sense teach us how to obtain accuracy of fit, harmony of color and edges which will not fracture. With the materials already at our command, we can obtain results immeasurably advantageous to our patients. Where may we not hope to stand after the lapse of another period of five years, when the inexhaustible ingenuity of members of our profession and the certain growth of knowledge in ceramic chemistry shall have given us still greater facilities?

Prosthetic Porcelain.

And now I beg to present to you the result of the latest investigations in my laboratory. These specimens, which are duplicates of crowns, bridges and continuous gum work in actual use, show how a new product, which I have called "Prosthetic Porcelain," since it is designed only for prosthetic purposes, can be practically applied. By its use, the strongest, the most cleanly and the most beautiful work can be made with unerring accuracy. I earnestly hope that this, or some more worthy material, may facilitate the disuse of gleaming gold in clasps and crowns and bridges, and that I may live to see the day when the art of the general practitioner shall be so truly art, that only the closest professional observation can distinguish it from nature.

The Shadow Problem in Reference to Porcelain Inlays.

By Joseph Head, D.D.S., of Philadelphia, Pa.

Read before the Central Dental Association, October 17, 1904.

The variation in color that so often comes when a porcelain filling is cemented into place arises from two prime causes. First, the shadow due to an exclusion of light by an opaque cement wall. Second, the reflection of color of the cement itself into the substance of the inlay.

Building Porcelain In Layers.

It has been claimed by Dr. Reeves and others that they can overcome these two difficulties by constructing the inlay in layers of different colors that so blend as to form the shade desired.

How these various colors in a porcelain sufficiently translucent to permit them to blend can be free from the darkening that comes when a large portion of the porcelain is excluded from the light by an opaque cement, passes comprehension. We know that the shadow ordinarily enters the porcelain in exact ratio as the position of the filling permits the oxyphosphate of zinc to shut it off from the light, the shadow from the darkened part penetrating through the entire porcelain inlay; therefore, if as has just been said, the inlay is sufficiently translucent to permit the color layers to blend into one color, why should not this same translucency permit the shadow cast by the cement to further modify the color? It has been claimed that two layers of different colors will so break up the light as to render the porcelain impervious to the shadow from the side or underneath; but this does not seem to be the case with backed facings. We know that if a facing is backed with platinum it will assume a darker, bluer appearance; and if it is backed with pure gold it will have a darker shade with a tendency to be a little more yellow, and yet the facing is made of two different layers of color. If this is so with the tooth, it is difficult to understand why the same law should not hold with the inlay; why the different colored layers in the tooth should permit the shadow to darken them and the different colored inlay should be unaffected; but even if the advocates of this layer method of overcoming shadows are accurate in their contention, this method can only apply to fillings of fairly large size, as the smaller inlays are too minute to be successfully divided up into layers. In fact, such a process reminds us of a plan devised by the late Dr. Atkinson for saving a pulp by excising the dead portion and uniting the flaps of the healthy part with a stitch, so that union by first intention can be obtained. Still let us wish the layer advocate good luck. By a variety of methods the best ultimate method is obtained. Let those who get satisfactory results by making inlays in layers continue and perfect the process; but for those who do not find the layer method satisfactory as a means of overcoming the shadow, there is still the older plan of lightening the porcelain so judiciously as to counterbalance the shadow and to color the cement with pigment, so as to make it at least approximate the color of the tooth. If these two means are used with judgment, and the inlay is not over-baked in the slightest degree, there should be little trouble in getting a good match. Of course, it takes experience to tell just how much lighter the porcelain should be made; but practice will overcome this difficulty, and matches can be readily obtained so accurate that only by special observation can the difference in color be observed.

Coloring Cement.

The best pigments for coloring cement seem to be those prepared by Ames. With these a variety of shades can be made in combination with a single

white cement, and the addition of the pigment does not appear to affect the strength of the oxyphosphate.

These pigments are especially valuable as an aid in getting accurate shades in labial cavities, since in labial cavities especially, the change of color due to the cement is most annoying. This variation is often so great as to cause complete failure in obtaining a match, if the filling has been over-baked; but even if a perfect fusion has been obtained, unless the filling is quite deep and unless the cement approximate the color of the tooth, the color of the inlay after it has set will change to a discouraging degree. It is noticeable that bluish white and yellowish white cements are the most popular for cementing inlays. This is unquestionably because they are the color of dentine, and sufficiently light to just overcome the slight darkening that will come even in a labial inlay that is cemented into position. Of course, if the labial cavity could always exactly face the light no shadow would be shown, but practically it is always in a position for one wall or the other to slightly intercept the light, and hence the popularity of the light yellow and light blue cements that are lighter than the tooth substance. With shallow labial cavities, where it is difficult to get good undercuts, etching with hydrofluoric acid is to be preferred, and even in the larger inlays, after the undercuts have been made, etching will add to the stability of the filling.

Advantages of Using a Bracer when Filling the Anterior Teeth with Gold.

By Dr. W. K. Sinton, Colorado Springs, Col.

Read before the Colorado State Dental Society, October, 1904.

This little device called a "bracer" is the invention of Dr. E. Parmley Brown, and although not one dentist in ten appears to have heard of it, I have for more than a dozen years found it a very valuable adjunct in making a large proportion of gold fillings in the anterior teeth. The bracer is made by moulding from pure tin and weighs about one pound. It is shaped so that one end can conveniently be placed between the ends of two teeth in such a manner that much of the force of the blow from the mallet is taken up by the bracer instead of being received by the tissues surrounding the root of the tooth. The advantage of this is twofold.

First the patient is relieved of much of the jar and pain from the blow of the mallet.

This is greatly appreciated by the patient when the peridental membrane is sore or the tooth loose or when both conditions exist as in occasion-

ally the case. The relief obtained in such cases will be surprising to those who have never seen it demonstrated.

Second. A blow from the mallet producing a definite amount of force will condense the gold more when the tooth is supported by the bracer than when it is not so supported. The advantage of this will I think be evident to all without farther comment. However, as an illustration of this principle, I will cite the practice familiar to all of holding an ax or other heavy substance opposite the point where a nail is being driven.

In most cases where the patient seems to tolerate well the blows of the mallet I dispense with the bracer except while putting in the last fourth of the filling, using it here in order to more thoroughly condense the gold on the surface of the filling. Though usual, it is not always necessary to place the bracer against the tooth being filled.

If more convenient it may be held against the adjoining tooth when the contact between it and the tooth to be filled is favorable, the force being thus transmitted to the bracer.

I will add that in proportion as the teeth are short and firmly set in their sockets or are well braced by their arrangement in the arch or as the impact from the mallet is in line with the long axis of the tooth, there is less need of using the bracer.

In conclusion I will urge all my hearers to try this simple and inexpensive device for their own benefit as well as the comfort of their patients.

Medical and Surgical Treatment of Infra-orbital Nerve in Conditions Following Antral Empyema.

By William L. Roberts, D.D.S.

Read before the Colorado State Dental Association, at Denver, October 13th, 14th, 1904.

In selecting the subject I am about to present for consideration, I have two excuses: One is the fact that removal of the infra-orbital nerve through the antrum, so far as I have been able to learn, had never been accomplished before; the other, that it remained for a dentist or oral surgeon to do it. Empyema of the maxillary sinus is of frequent occurrence, and while generally confined to one side, it is occasionally double, and more frequently found in conjunction with a diseased frontal sinus. And when we consider the anatomical relation of these parts we are left with wonder still predominant, that one part can be affected and not all.

The maxillary sinuses are the largest air cavities associated with the

nasal chamber. They are situated in the body of the maxilla on each side.

Maxillary Sinus Described.

The sinus varies in shape, size and in the thickness of its walls, and according to age, race and the presence or absence of teeth and tooth-germs within the jaw. It is lined with muco-periosteum surmounted by ciliated epithelium, usually pyramidal in shape, the apex being toward the molar bone into which specimens show it may extend, with base toward the nasal cavity. Its size and form vary in different subjects, even in the two sides of the same subject. Eminent authors say "specimens have been found where it was lacking on one or both sides"; personally, I have never seen one.

The development of the sinus begins about the fourth month of gestation by an invagination of the lining membrane of the nose from the hiatus semilunaris into the body of the maxilla. From this time until the eruption of the permanent teeth the greater portion of the maxilla is occupied by the dental organs. As the invagination progresses the cancellated portion of the bone undergoes resorption, and is continued throughout life, until in old age the walls usually become exceedingly thin, sometimes so much so that an instrument may be easily passed through the walls into the sinus, and even to the extent that naught remains but the muco-periosteum at certain points. To this resorption is due the fact that the roots of the molars are frequently found only covered with muco-periosteum.

Its walls are five in number: The inferior, or floor; the anterior, or facial; the posterior, or zygomatic; the superior, or roof, and the proximal, or nasal.

The floor of the maxillary sinus is usually uneven, owing to the presence of little septa and conical elevations over the roots of the various teeth. As age advances and the teeth are lost the floor becomes comparatively smooth. There may, however, be found septa of various heights extending transversely from side to side, forming pockets between them. In the negro, owing to the thickness of bone over roots of the teeth, the floor is usually smooth. The floor usually being concave, the lowest portion is ordinarily below the level of the nasal chamber.

The anterior wall is almost square, with rounded corners. It is smooth, with slight depressions, which vary according to the position of the passage of the infra-orbital canal or tube. The anterior dental canal for the accommodation of the anterior dental nerves and vessels passes from the sinus into the wall to reach the anterior teeth.

The outer wall of the sinus is more or less triangular and concave on its inner surface, and the concavity may extend into the molar bone. As age advances, the wall grows thin, and may be no thicker than a sheet

of paper, thus making perforation over roots of the molar teeth easy.

The posterior, or zygomatic wall extends from a line vertical to the center of the molar process backward and inward to the proximal or nasal wall. It is concave in a transverse direction, and nearly straight in its vertical direction. In the young it is thick, but as age advances it grows thin like the outer wall.

The superior wall, or roof of the sinus, is usually triangular in shape, the base of the triangle beginning at the inner or nasal wall. It is convex in a transverse direction, with the inner edge varying in height. Its junction with the inner wall varies in position in different subjects. Its surface is usually marked by a ridge of bone which contains the canal for passage of the infra-orbital vessels and nerves. This canal commences at the posterior border of the floor of the orbit; continuing forward, it is lost about the middle of the floor, where it passes into the infra-orbital foramen. The ridge extends downward and forward to meet the anterior wall of the sinus. Now, this dipping down of the ridge varies greatly in extent, being scarcely noticeable in some specimens, while in others, it extends downward so far that the canal becomes distinctly tubular in character, passing diagonally through the sinus, carrying the infra-orbital nerves and vessels across the anterior portion, with an open space above the tube. The open space above the antrum extends outward into the lower rim of the orbit, forming an infra-orbital sinus, or pocket.

The ostium maxillare is an oval-shaped foramen which affords communication between the sinus and nasal fossa through the hiatus semilunaris, and is usually found on the upper edge of the proximal wall near the anterior portion; it occasionally commences in the roof of the sinus, then passes in a slightly curved direction, terminating in the hiatus-semilunaris. In pathological conditions or extreme old age there may be two or more openings between the maxillary sinus and the nasal chamber.

This anatomical arrangement has an important surgical significance, especially in resection of the inferior dental nerve, and also in operating for relief of neuralgias located at the inner canthus of the eye.

Operation for Resection of Nerve.

In the case upon which I operated before the Denver City Dental Association about eighteen months ago, the patient had been a constant sufferer for years with these neuralgia pains. She had submitted to several operations on her eyes; her teeth had all been removed, and as she expressed herself, she "might as well be dead, as alive and continue suffering as she had." The anatomy of the parts you are all familiar with. The conditions existing when I saw the case first were as follows: Constant neuralgic pains at the inner canthus of right eye; health

decidedly unfavorable for operation, or anæsthetic. She had Bright's disease, asthma and hypertrophied heart, but as she was anxious, I thought best to take chances. I found the antrum to be in an extremely empyemic condition, the walls all around badly necrosed and tissues in a suppurating condition. I thoroughly curetted, and then locating the infra-orbital canal by the little convexity which existed, carefully drew my curette over it mesio-distally until I felt it give away, then with a very small tenaculum, I hooked up both nerve and artery, and stretching them all I dared, picked them up with a pair of small forceps, and clipped out about one inch. The hemorrhage was easily controlled by packing with adrenalin chloride, and the patient allowed to recover from the anæsthetic.

The patient was seen every twenty-four hours for a time, or until temperature returned to normal. Sprays were used, keeping wound open by gauze packing for about two months, since which time she has attended to it herself, only reporting occasionally. From the day of operation to the present time, she has had no return of the neuralgic pain; her health is much improved, and so far as the operation goes, this was a success. I have several slides made from the portion of nerve removed, and they will be shown through the microscope.

My particular object in giving you this paper is to emphasize the absolute necessity of great care in the extraction of molar teeth, insertion of gold crowns and bridges, and also the removal of the contents of a purulent canal. Examples of accidents of this nature have been frequent. Diseases of the maxillary sinus are liable to produce disturbances in the teeth, for you will remember the blood supply passes along the floor of the antrum and through the wall; also branches of the fifth nerve accompany the vessels, and these are also liable to become deranged in their functions.

The Status of our Dental Law and its Present Needs.

By H. F. Hoffman, D.D.S., Denver, Col.

Read before the Colorado State Dental Society, Oct., 1904.

Dental legislation was first secured in Colorado in 1889. This law was amended in 1891, and was subsequently declared unconstitutional. In 1897 the present law was enacted, which law has so far remained unchanged.

Several efforts have been made to secure different dental legislation since 1897, the only one with which we need concern ourselves now, being the proposed substitute for the present law which was introduced into the legislature four years ago. From this measure we may well learn some lessons.

Many objections were raised to this bill, the most reasonable one being that the present law had never been tested, and that it would be folly to enact a new measure without knowing how the existing law would stand in the courts.

As the matter then stood no case had ever been carried to the Supreme Court, and but one case had ever been brought to trial; in which instance the defendant was acquitted by a jury.

This was the state of affairs presented to the dental board of 1901-'02; briefly, an untested law, opinion about equally divided as to the possibility of its enforcement and its constitutionality, and a large element of the profession insisting that a thorough test precede any attempt to change or amend it.

Of several prosecutions started, one against S. B. Gothard was carried to the Supreme Court. In this case information was first filed in September, 1901; conviction was secured in the District Court in El Paso County in May, 1902; appeal was taken to the Supreme Court, from which a decision was given December 7, 1903, a period of over two years.

Supreme Court Decision.

I deem it necessary only to occupy your time with a consideration of the principal ground upon which the legality of the law was attacked, together with that part of the decision bearing directly upon it. This exception to the law was taken as follows:

"That said act is class legislation in this, to wit: That it gives sole power to the State Dental Board to restrict the practice of dentistry to persons graduating from dental schools recognized only by said State Dental Board, without consideration of the ability of the applicant to pass the examination required by said dental law."

In passing upon this point the Supreme Court says:

"The assignment is based upon the proposition that because power is given by the statute to the State Board to restrict the practice of dentistry to persons holding a diploma from a dental school, college or university of the class designated, without respect to the ability of the applicant to pass such an examination as may be conducted by the Board itself, an unwarranted discrimination is thereby made in favor of those holding a diploma against those who do not, in favor of one class of citizens as against another. This objection made to acts of this and similar character has been repeatedly overruled by many of the most respectable courts of the country. In Harding v. People, 10 Colo., 387, 15 Pac. 727, it has in principle been declared untenable. While a citizen of the United States has the undoubted right, as was said in that case (quoting from an opinion of the United States Supreme Court) "to pursue any lawful profession in a lawful manner, nevertheless such pursuit is always subject to such reasonable restrictions as may be lawfully prescribed by the legis-

lature of each State, in order to protect the public health and promote the general interests of society; and so long as such restrictions are reasonable, not arbitrary or oppressive, and leaves the field open for every citizen of the United States who comes endowed with all the necessary qualifications to practice his profession, the law cannot be declared unconstitutional." In the case of Dent v. West Virginia, 129 U. S. 114, 124; 9 Sup. Ct. 231, 32 L. Ed. 623, it was said that "the nature and extent of the qualifications required must depend primarily upon the judgment of the State as to their necessity. If they are appropriate to the calling or profession, and attainable by reasonable study or application, no objection to their validity can be raised because of their stringency or difficulty. It is only when they have no relation to such calling or profession, or are unattainable by such reasonable study or application, that they can operate to deprive one of his right to pursue a lawful vocation." Applying these tests to this statute, we cannot say that the restrictions upon the right to practice dentistry contained therein have no relation to such profession, or are arbitrary, or that the qualifications thereby prescribed are unattainable by reasonable study and application. Every citizen who desires to practice dentistry is accorded the same opportunity, and is bound by the same restrictions, which are applicable to all; and we cannot say that it is an unreasonable restriction that only such persons as hold a diploma from some authorized dental school are entitled to take the examination, or fit to practice dentistry. The great mass of the people are unable to determine for themselves the qualifications of those who hold themselves out as practitioners of this important and highly useful art, and the General Assembly in the exercise of its police power, which is inherent in every State may prescribe such reasonable regulations as are found in this act." . . . "The judgment is affirmed."

From this you will see that the law was entirely sustained.

Work of the Board.

The first boards that were created under the present law were confronted with an unsettled state of affairs, due in part to the condition in which the law had been for some time, but mainly to the malfeasance and rascality of a few members of one of the later boards under the old law. Let us remember, however, that all were not rascals, and that the profession is deeply indebted for the services of many honorable and trustworthy men, pioneers in dentistry in Colorado.

For several years the attention of the boards under the present law was largely given to the work of adjusting these irregularities. While, as in everything human, some mistakes may have been made, still that there are no irreparable errors, and that your boards have been uniformly honest, are certainly facts worthy of your notice and approval.

With the work of testing the present law, prosecutions were begun against all violators so far as the means of the board would permit. Twenty prosecutions have been started; eight convictions have been secured; three cases have been withdrawn upon the defendants paying the costs and leaving the State; one defendant left the State and forfeited his bond and another left the State to avoid arrest. The others have not yet come to trial. Only one case has been lost and this was followed by a successful prosecution against the same man.

It has not been the policy of the Board to withdraw prosecutions after once being started, nor even after the evidence has been secured.

These successes have been won in three and one-half years with not to exceed $1,500 at the disposal of the Board. Show any other department of State which has in three and one-half years conducted twenty prosecutions in different parts of the State, and in addition has carried on its general business, all on less than $500 a year. And still there are a few bullet headed individuals who assert that the members of the Board make money out of the job.

Changes Recommended.

Now with all these things, what do we need and why do we need it? In the Seventh Biennial Report of the State Board of Dental Examiners, dated December 15, 1902, the following changes were recommended:

"Although the dental law has proved of great benefit to the people of the State in protecting them from abuse and from loss of money at the hands of unskilled men, still experience has demonstrated the desirability of some slight changes and additions. The law now affords no relief from unprincipled practitioners, and means should be provided for the revocation of licenses in such cases. The practice of dentistry as that of law or of medicine is a privilege and not a right of citizenship, and the possession of a license is not intended to grant for life a privilege to fleece the public.

"The sole funds provided under the present law, the examination fees collected from applicants, are insufficient to continue the work of the Board in a systematic and efficient manner similar to other State departments. This money is barely more than sufficient to defray the expenses incident to the meetings and examinations held, leaving practically nothing with which to employ the labor necessary to secure the enforcement of the law throughout the State.

"While the provision of the law that no member of the Board shall receive any compensation for his services as a member of the board may be proper so far as the meetings of the Board are concerned, it was certainly never supposed that any member, however much he might be interested, could take from his office without compensation the time necessary to keep

the records and conduct the correspondence of a State Department, as well as to travel to the seat of each violation to conduct a prosecution. Yet, since all this is demanded for the best interests of the public, suitable provision should be made for it.

"We further recommend that the term of office for the various members comprising the Board, be so arranged as to expire at separate intervals, thus avoiding a complete change in the Board every two years, and the consequent demoralization of the work."

Although the need of these changes is just as apparent as ever, we are now confronted by another necessity of equal if not greater importance than any, the need of an alternative jail sentence.

The violation of any of the provisions of the law is made a misdemeanor, but is punishable only by a fine. In the event of the fine not being paid, either by refusal or inability, considerable difficulty is already being encountered. In spite of this difficulty the law is being enforced. The Court may require that a man show to its absolute satisfaction that he cannot pay the fine, and the second conviction for a violation subsequent to the first conviction puts him in a very different position before the Court. However, this makes additional work for the Board which already has insufficient time and means to do half of the work which it now does. In addition to this the courts object to the prosecutions under a law presenting such difficulties in the way of collecting the fines imposed.

To sum up, the law is good as far as it goes. It contains nothing really objectionable, but much is needed to insure efficiency. Could the same amount of energy have been expended in testing and establishing the legality of an efficient law, we would have been moved farther along the road to success. Much care should be exercised in amending the law, that there be nothing in the amendment to conflict with or invalidate the entire act. Experience here, as well as in other States, proves the wisdom of attempting only small changes at one time. That any desired amendment to the law should be fathered by the State Dental Association is entirely proper, and indisputably the entire reputable element of the profession should be brought together to support such a movement, irrespective of association membership, for only by such a combined action can we hope to accomplish anything.

A Resume of the Nerve Canal Subject.

By Dr. E. H. Ginnelley.

Read before the Mercer Dental Society, Trenton, N. J., July, 1904.

Having accepted the invitation of our president to prepare a paper for this, practically the first meeting of our society, I soon realized the responsibility with which I had burdened myself as the time drew near for collecting the substance of the paper, and I began to appreciate difficulties heretofore unforeseen, as I was brought face to face with a realization of the fact that to present something new and original was not possible. But, believing that an experience of some years might prove at least useful in removing a few stumbling blocks from the pathway of a brother in distress, with an all-abiding faith in the leniency of my hearers, I have decided to dedicate this paper to what I believe today to be the foundation of the art of dentistry, upon which is builded in precious metals and porcelain, the most exquisite work of man, the comfort, success and stability of which depends upon the masterful structure of the preparation of its foundation. It has been well said, "that the progress which we cannot withstand is demanding today that we shall make pulpless root canals inoffensive, not occasionally, and with much labor, endurance and expense, but that we shall do it often, quickly and at a minimum of expense."

The subject of treatment of devitalized teeth and the filling of root canals and the various methods employed, while not new, yet is of the most vital importance to every conscientious practitioner. It is not my purpose to review the many methods employed in the treatment of teeth; neither shall I exhaust your patience by presenting the chemical and theoretical merits and demerits of the various antiseptics, escharotics, germicides, essential oils, etc., but I shall confine myself to the methods used in the saving of 235 devitalized teeth during the past year, not one of which, to my knowledge, has resulted in failure in any respect. For the purpose of more clearly explaining my methods in treating the various conditions, I shall divide them into three classes.

Extirpation of Pulps.

First.—The destruction of the pulp by either arsenic or injection. A case presenting with exposed or inflamed pulp, use the ordinary method of relieving the pain and reducing the inflammation. Two days later, if posterior teeth, apply arsenical preparation, hermetically sealing same, leaving it four or five days, when, upon removing, make good-sized opening into pulp chamber, dismiss patient, and in about one week adjust rubber dam, remove pulp, and if the slightest pain is felt, flood the canal with carbolic

acid, working broach and acid up gradually to apex of root; above all, do not be afraid to reach the end, for just herein lies your success or failure, and a Fellowship or Danaldson broach, size marked "Fine," will not pass through an apical foramen five times out of a hundred, and soon one becomes accustomed to the touch and can readily determine when the extreme end has been reached. After completely removing pulp, with an old broach wrapped with bibulous paper, thoroughly dry root, after which use a hot-air syringe, drying tooth until patient feels the root is warm. In filling root, use Harvard cement, mixed very thin but thoroughly mixed with a large drop of oil of cinnamon first incorporated with the acid before the addition of powder; now use small, smooth, steel broach, and thoroughly pump cement to end of root, after which insert gutta-percha root canal point, and push it to the end; heat ball-shaped instrument hot, and cut off surplus length of gutta-percha point; add powder to remaining cement, or mix more quite stiff and fill part or more of crown, as desired, but as this keeps the thin cement in root forced to place, do not fail to fill at least bulbous portion of tooth.

Occasionally, we find roots of molars, the canals of which are too small for the ready introduction of gutta-percha points; in those cases I use a small, Swiss, untempered broach, in place of the gutta-percha point, first introducing broach to end of root, making a length about half-way with length of crown of tooth; partly withdraw, cut off with crown shears, and then with heavy pair foil carriers or a blunt instrument return broach to apex.

In preparing a root to receive a Logan crown, I proceed in the same manner as above described for removing the pulp and drying the canal; then with a smooth, steel broach with blunt end, heat the point, and with a small section of a gutta-percha point fasten to end of broach, soften over flame of alcohol lamp, dip in eucalyptol and carefully introduce into canal and force to apex, thoroughly condensing and closing foramen; then remove rubber dam and proceed with the crowning. By this method I have entirely eliminated any after trouble, such as swollen face, or even soreness.

Creating Putrescent Canals.

In the second class of cases are included teeth whose pulps have died from natural causes and through decomposition have become putrescent, and from the slightest causes may develop a blind abscess with all its attending tortures. In treating where there is no apparent inflammation, adjust the rubber dam, flood the canal with dioxygen, carefully loosening contents of canal with broach, and with Aşepto syringe continually wash contents out until apex of root is reached; then dry out canal, and with cotton-covered broach pump in root, Thayer's No. 4 in

anterior teeth, and if posterior, oil of cinnamon or Thayer's No 4. In the anterior teeth, where the canals are large enough and easily accessible, fill canal with cotton to apex, but not tightly; dry coronal portion of tooth and seal tightly with temporary stopping. If after a week there is no trouble, proceed to fill.

Should the case presented be one wherein the inflammatory action has already attained a state of acute abscess, then open and cleanse thoroughly the canals to the apex; apply aconite and iodine to the gum, and where the pain is severe inject a few minims of a ten per cent solution of cocaine in gum over apex of root; dismiss patient and have him return in a day or two, or as soon as inflammation has subsided, and then thoroughly syringe out canal with dioxygen every two or three days for a few times, when the tooth should be treated as in case where no abscess exists, except that for the first treatment I do not seal the medicament in, but use a pellet of cotton thoroughly saturated with vaseline; then, after two or three days, treat again as in case of no abscess. I have always considered the acute abscess the most serious and the least understood. Almost every writer on the subject admonishes the operator to use the utmost precaution against forcing septic matter through the foramen, which precaution is thoroughly justifiable, yet when we treat a case that has never and is not now giving trouble, how many times have each of us had the patient return in six to twelve hours after the treatment was made with the undisguised active symptoms of acute abscess"? I believe firmly that the septic matter, in the majority of those cases, had previously invaded the apical space, and had become a regular habitué of the peridental membrane, dwelling there in apparent harmony with the surroundings, until captured by imprisonment and subjected to solitary confinement, when they soon assert their presence and demand release.

Chronic Abscess with Fistula.

The third class of cases are much more easily managed. In treatment of chronic alveolar abscess with fistula, after adjusting dam the contents of the root canals should be thoroughly removed, and with a strong hypodermic syringe place a ball of vulcanized rubber over syringe point large enough to fill cavity of tooth or root; then force dioxygen through root and out at fistulous opening, thoroughly cleansing tract. Now, with a broach wound with cotton sufficiently large to fill the canal, flood same with Thayer's No. 4 or carbolic acid, and pump it through fistulous opening, taking the precaution to place a large piece of bibulous paper folded several thicknesses and saturated with vaseline over fistulous opening, that the medicament used may not injure the surrounding tissues. In ninety-nine cases out of a hundred, this will be all the treatment required, and the tooth may be immediately filled, but the writer prefers to

leave treatment in tooth as in case of no abscess, sealing tightly, and in one week if fistulous opening is thoroughly healed then fill.

In some cases the apical foramen is closed, so that nothing can be forced through. I then treat as in case of no abscess, and take a broach, wind piece of bibulous paper around it, dip in Thayer's No. 4 or carbolic acid and insert it into fistulous opening; follow tract through alveolus to point of root and thoroughly swab out tract. Cover opening with cotton and vaseline for a day or two, and in about five days, if healed, fill tooth.

In case of fistulous opening that persists in not healing, I take asepto syringe, and with piece of soft rubber over point, insert point deeply in fistulous tract, and inject gently with Thayer's or carbolic acid, holding rubber tightly with pliers over opening, and withdrawing piston of syringe before removing it. By so doing there will be no escape of medicament upon the gums or cheek. I have employed this method in place of extraction and replantation where the ends of the roots have become calcified or necrosed through persistent aveolar abscess, and in all cases that do not readily respond to ordinary treatment.

Instrumentation.

In conclusion, I desire to say that I have followed the above treatment and filling for the past ten years, with some modifications, which has tended toward perfection. It will be noticed that I never use any instrument in a root canal but broaches, as I have never found any necessity for enlargement. I claim that in absolutely every tooth, except occasionally a third molar, I can reach the apex of the root with a broach, and can fill it with the same instrument. I do not include in the above statement teeth wherein the canals are entirely obliterated through age or abnormal conditions.

But to be successful, one must enlarge the pulp cavity and cut away sufficient tooth structure to obtain direct accessibility to canals, exclude saliva, and fill to apex of roots, as I am thoroughly convinced that success almost entirely depends, not so much on what medicaments are employed or how, as upon their intelligent application at the proper time and thorough, successful manipulation.

Fistula of the Chin of Dental Origin.*

By O. Amoedo, A.B., C.D., M.D.,
Professor of Operative Dentistry at the *Ecole Odontotechnique de France.*

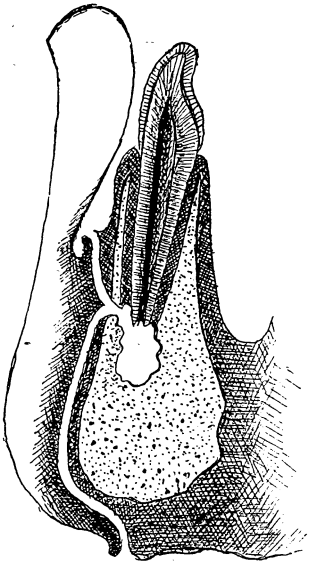
I have the honor to submit for your consideration a case of fistula of the jaw of dental origin, which gave me opportunity to ascertain how much the opinions of surgeons and of some dentists regarding dental and peridental pathology differ from mine and that of dentists in general.,

History of an Interesting Case.

Mr. S., a native of Paris, age twenty-four years, endowed with good general health, has only twice suffered from dental caries. The first time the first left molar was first attacked and then extracted. Four years ago the first right molar was affected with acute pulpitis, and although still in a good condition, I was obliged to extract it, for Mr. S., having to leave for New York the next day, insisted on my ridding him of this tooth. The twenty-six other teeth are free from caries, the wisdom teeth having not yet made their appearance. Two years ago the first symptoms of the present condition manifested themselves, consisting in a slight inflammation of the right side of the chin, which disappeared of its own accord. Then in June, of last year, Mr. S., who was then in Porto Rico had a second inflammation, which likewise ended without suppuration. Last December there was another inflammation, but this time of such extensive proportions that it necessitated the intervention of a surgeon. The operation consisted in the opening of a phlegmon seated on the lower part of the chin on the median line, and occupying the lower ridge of the right vestibule. Injections projected through the opening of the chin came out through the opening of the vestibule. A ganglion under the right chin originated at this time, and was still there on the day of my examination. Everything had returned to its right position with the exception of the ganglion, when last month a fourth crisis came, followed by suppuration, as the last time. The surgeon who attended Mr. S. in Porto Rico advised a surgical operation (à froid) to consist in scraping the bone. Startled by the prospect of this operation, Mr. S. decided to come to Paris. The Porto Rico physician sent him an observation sheet, but without indicating the exact diagnosis or etiology of the affection. After arriving in Paris, Mr. S. forthwith consulted his family physician, who, in order to determine the diagnosis had the lower jaw radiographed. These radiographs permitted our colleague to eliminate the idea of necrosis of the bone.

*Paper read before the *Sté Odontologique de France,* at its session in June, 1904.

Up to now an examination of the teeth had been neglected, which at first sight appeared healthy. There was there, nevertheless, the only point to clear up, and it was then our colleague referred the patient to me, April 14, 1904. That same day, but before coming to see me, Mr. S. consulted one of the most eminent professors of the Faculty of Medicine, a hospital physician, who diagnosed adenitis and periostitis. To effect a cure, he explained, would necessitate surgical intervention. To the question by the



patient whether the advice of a dentist was necessary, the master replied that the case required the intervention of a surgeon, but not of a dentist. In spite of this categorical opinion, Mr. S. came to consult me, and gave me his history.

At the examination, I found on the median line of the chin a small scar still fresh from the opening of the old abscess. The chin was slightly tumefied, and according to the patient, who knew the symptoms, a recurrence was imminent. On palpation the right sub-chin ganglion felt of the size almost of a nut. In the buccal vestibule a whitish-red pimple indicated the seat of a cicatrized fistula. Pressure caused no liquid to come out, neither inside nor outside. As I just told you, all teeth were free from caries. Those of the diseased region were almost all of the same color. Only when the light fell obliquely did I observe that the cuspid was very slightly grayer than the adjacent teeth, and when examining the mouth

with the electric lamp, this tooth appeared to me almost as transparent as the others, yet I could note a slight opacity, which allowed me to diagnose mortification of the pulp of the cuspid; at the same time I located the cause of the above-mentioned complications.

Etiology and Treatment.

As to the etiology of the mortification of this pulp, it may be attributed to a blow from a horse's head, received on the chin two or three years before. As soon as I had made the diagnosis I opened the cuspid by drilling, and found, in fact, that the pulp had completely disappeared from the pulp chamber. An injection of oxygenized water projected with force by means of a small syringe, was followed by an acute pain but a moment later, the two fistulas having re-opened, the gases escaped easily, and the pain disappeared. Renewed injections then passed through the fistulas without causing any pain. I filled the pulp chamber with tampons of iodoform dissolved in ether and capped with gutta-percha. I repeated the treatment Friday, April 15, Saturday, April 16, and Monday, April 18.

In three days the shape of the chin changed completely and everything seemed to be on the road to a speedy cure.

On the 18th of April I introduced the patient to the *Société de Stomatologie*, and the advice of the colleagues present was to make an injection of creasote through the fistula. Several cures were mentioned by means of a single dressing. The patient who was very timid did not allow me to make the injection with creasote, believing it to be very painful, but I succeeded in making several other injections of chloride of zinc, and I finally completely cured the fistula of the chin. There was then left only the previous gingival fistula. But at this time the left ganglion of the chin became affected in turn, the patient thinking the cure was being retarded and having to return to Porto Rico immediately, went to consult two surgeons, and I give here the letter I received from his physician:

Correspondence between Surgeon and Dentist.

"My dear Colleague:

"Our friend, S., has seen some surgeons, especially Messrs. T. and R. These colleagues think the bone should be operated upon and scraped, but they are of the opinion that the tooth should be extracted first. This is also my opinion. I think, moreover, that once the tooth is out the source of the pus will be drained, and that we can cure him without another operation. It will then not be difficult for you to put in an artificial tooth for him.

"Yours truly,

"Dr. X."

I answered with the following letter:

"My dear Colleague:

"In answer to your favor of this day, I beg to inform you that notwithstanding the respect I have for the master and Professor P. and Dr. R., and for your own personal opinion, I am absolutely of a different mind. My view is the same as that of the stomatologists with whom I have consulted regarding this case at the *Société de Stomatologie.* Extraction of the tooth was not only not indicated when the fistula of the chin was in existence, but it is even less indicated now that this fistula is already cured. This tooth, far from interfering now with a complete and rapid cicatrization, serves on the contrary as a means of communication to interpose upon the diseased tissues by means of modifying substances. As to the ganglions, the one that caused me most apprehension—the one on the left side—is on a speedy way to dissolution. The one on the right side, although diminished in volume, seems to contain pus, and on this account, probably, its resolution has been retarded. It might, perhaps, be beneficial to lance this ganglion, but as this is within your province, I leave it to your discretion.

"Yours truly."

On his part, Mr. S., the father, wrote me, saying that he was far from agreeing with me; that he was, on the contrary, of the opinion that the advice of the great physicians was of much value, and should be considered in the matter, and that he intended following their advice.

On May 13, 1904, I replied by the following letter:

"Dear Sir:

"In answer to your favor of this day, I beg to enclose you a copy of the letter I have written to Dr. X., in answer to one in which he told me that both Drs. T. and R., as well as himself, were of the opinion to extract the teeth and perform an operation consisting of scraping the bone. He says that once the tooth is out, the source of pus will be drained, and that I can cure him without further operation. It is evident that after the extraction and the scraping of the bone nothing would remain to me, as prosthetician, but to repair the havoc caused by the operation. Today, suppuration has been drained; there is not a particle of pus. The fistulas are already healed, both on the chin and the gum. But I have to continue intraosseous washings through the tooth, but only for a few days. The ganglions alone remain, with pus probably, and that falls within Dr. X.'s province, who must give his advice upon intervention from this side. Consequently, you are at liberty to have your child mutilated by having the tooth extracted in accordance with the opinion of the great physicians, but you will not find a single educated dentist who would submit to a like mutilation.

"Yours truly."

The Tooth Extracted.

Well, gentlemen, I was mistaken when saying this to the father of Mr. S., for there was found a dentist who extracted his son's tooth, and this dentist, a doctor of medicine, stated that the tooth, being dead, acted like a foreign body, and that extraction was indispensible to obtain a cure. Now, as I told you, the tooth was in such a healthy state and so well implanted in its alveolus that the most experienced eye could hardly detect that it was dead.

Some days ago, before his departure for Porto Rico, I saw the patient again; the right ganglion had already disappeared, the left one was still affected, in spite of having been lanced.

In conclusion, I still believe that the patient would have been completely cured of his ganglions by treating him through the tooth, as he had already been cured of his fistulas on the chin. Extraction was needless, and this fact alone must be considered a great step backward taken by odontology.

Discussion.

Dr. Siffre thanked Dr. Amoedo for his paper so complete, and mentioned two almost similar cases.

Dr. Siffre.

The first was reported to the *Société Odontologique,* and published in the October, 1898, number of the *Review* (p. 436, case 1). A young lady attacked by sharp pain in the region of the chin, consulted her physician, who, after an examination in February, 1897, lanced it. The fistula thus created persisted, and in September the patient entered Laennec Hospital. Several injections of iodine were made, and suppuration momentarily ceased. The pus having again began to flow, the lady again entered Laennec Hospital, and this time she was put under chloroform, and the jaw bone scraped. The patient left the hospital November 9, the fistula still discharging. The 10th of November she came to the *Ecole Dentaire* in the service of M. Hivert, who made the true diagnosis. After a very scrupulous examination, a certain looseness, a slight difference of color decided Dr. Siffre to tap the two lower central incisors by drilling, and the pus beginning to issue from these new outlets confirmed his diagnosis and that of M. Hivert. M. Carrel, a third-year student, gave the treatment, and the fistula closed immediately.

The other case of which Dr. Siffre speaks was reported to the *Societé de Stomatologie,* under the title, "Inter-Alveolar Propagation of Abscesses," in June, 1903, and published in the *Revue de Stomatologie* in August, 1903, Case No. 8. The patient (female) had had several years before, a dental abscess which had entailed the extraction of the first

bicuspid, and shortly after extraction, a fistula on the chin had made its appearance. Afterward, the patient had consulted several physicians, all advising a surgical operation. The patient had always refused this sort of intervention. A pupil and friend of Dr. Siffre, M. Papillaud, then brought the patient to him. A very careful examination made him suspect the cuspid, which he decided to tap. He found an infected canal. Treatment with sulphuric acid very speedily caused a disappearance of the fistula.

Dr. Siffre begged indulgence for having made such lengthy reference to these two cases, but that was necessary in order to show us that in these two cases, as in that of Dr. Amoedo, the physicians consulted, even though they were hospital physicians, have made bad diagnoses, and in consequence performed useless surgical operations. He remarks, regretting very much to be obliged to do so, that in a general way members of the medical profession ignore completely everything which bears on dental and peridental affections, and not only ignore them, but they even seem to want to ignore the numerous papers published by dentists on these affections.

Dr. Rodolphe. M. Rodolphe does not think that the dentist who extracted the tooth is to be blamed as much as Dr. Amoedo would think. He suggests that this dentist, putting aside his personal opinion, may have been influenced by the opinions of the surgeons and the physician of the patient. Finally, in his opinion, the mutilation is not so great, for in like cases a complete cure cannot be ascertained by preserving the tooth.

Dr. Amoedo. Dr. Amoedo replied that there is a mutilation on the part of the dentist and a proof of ignorance on the part of the physicians and surgeons. Finally, that a dental fistula can always be cured. Even in the most obstinate cases, when there is serous tarter at the end of the root, good results may be obtained by cutting away this point.

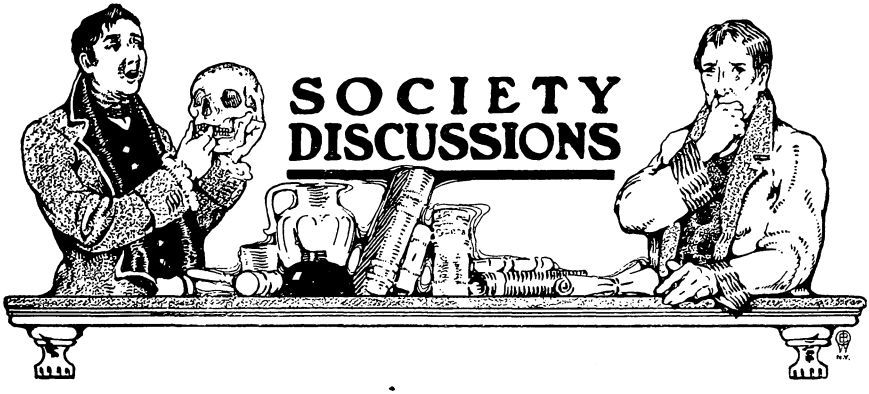
Dr. Ducournan. M. Ducournan mentions a case of fistula of the chin treated by him and presented at the Dental Congress at Ajaccio in 1901. The patient, Mr. N., thirty-five years of age, robust constitution without pathological antecedents, was affected with a persistent suppuration under the median line of the chin; *i. e.*, of a fistulous character. After a rather long treatment of this without result, in order to get rid of it, a hospital surgeon cut, scraped and cauterized the walls of the maxillary, and, of course, again, six or seven weeks after this intervention, a slight swelling appeared, and the fistula again opened exuding pus. M. Ducournan, to whom the patient was taken, suspected one or several incisors to be the cause of the trouble,

and what attracted his attention to this was that the man, five or six years before, had fallen headlong on a slippery sidewalk and thought he had broken all his teeth. M. Ducournan, with an excavator, tapped lightly upon each of the incisors, and the patient noticed a different sensation in the left center incisor. From this the diagnosis was established. Nevertheless, to be doubly sure, M. Ducournan examined the tooth with the electric lamp, and its opacity, compared with the adjacent teeth confirmed him. This tooth was surely affected. Immediately, he made an opening vertical to the root, and from the opening of the pulp canal evolved a foul odor and a small particle of pus. After that there was nothing left to be done but to give him the treatment for caries of the fourth degree, which was done with evident success.

But all these cases remain unknown to our great masters of surgery. If they find a fistula in the region of the maxillaries, naturally they first examine the mouth. That is their first duty. If they notice a carious tooth, the cause of the fistula, they have it extracted without pity, as in olden times, without suspecting the progress accomplished in the art of treating root canals.

If they do not notice any carious teeth they do worse; they cut the flesh of the fistula, attack the jaw bone laid open, scrape, scoop, scalp and cauterize it, and to their great astonishment, the fistula reappears in a short time. And we do not dare hope that they will take cognizance of these facts; they despise too much the dentists and their reviews.

The Secretary,
DR. P. FONTANEL.



New Jersey State Dental Society 36th Annual Meeting.

Thursday, July 21, 1904—Morning Session.

President Sutphen called the meeting to order.

It appearing a quorum was present, on motion, the roll call was omitted.

The President. We will resume the discussion of the papers of last evening and I will first call upon Dr. Freeman, of New York.

Dr. S. Freeman. As you have granted only an hour for discussion of these papers I will only detain you a few minutes with my opinion upon this subject, deductions made from clinical observations and not theory. First, allow me to state that pyorrhea alveolaris is a disease due to systemic conditions with local manifestations, and can only be arrested when the proper medicaments are applied, or through treatment given to the patient to improve the general health, and treating locally the diseased condition of the teeth gums.

It is a disease in which we have success in treatment through the intervention only of local treatment, by thorough cleanliness; that is, the removal of the salivary calculus, cleansing the teeth and removal of the diseased alveolus, and is commonly known as Riggs disease. Gentlemen, this is what I have been teaching my patients for years and now I place it before you for your consideration. I do not know if environments act upon people differently, but such dogmatic statements coming from such intelligent men as our Philadelphia brethren must be refuted—that diseases of the general system are due to pyorrhea alveolaris. Have these gentlemen ever seen the conditions of the gums and teeth of a pregnant woman? Is her general condition due to the turgid gums, the acid mouth

and loose decaying teeth? Gentlemen, it may be so in Philadelphia, but we think differently in New York. About two years ago an article appeared in ITEMS OF INTEREST, written by me, in which I stated that the greater number of cases of pyorrhea alveolaris are due to aenemia, which in turn is caused primarily by some general or local constitutional ailment, which requires surgical or medical intervention. In such cases you will see, as I have, the amelioration of that dreaded disease of the teeth, but allow that systemic condition to appear again and you have the teeth affected. Gentlemen, you have other tissues affected by some disorder of the patient, which are also tissues of the body. Dr. Luckey asks why does this disease appear upon one tooth or one side and not upon another? Because they are weaker and more susceptible to the general breakdown. Why does uric acid appear upon the sheath of the nerves or the joints? Why in one finger and not another? Why can you raise cranberries upon one soil and wheat upon another? Because the conditions of that soil are suitable for the proper propagation of such vegetation. So are these teeth surrounded by membranes which are in such weak condition that they are the first to be attacked.

Now, gentlemen, in reference to cleanliness, it is surprising to me that some of these gentlemen have only been cleaning teeth for the last few years, for an axiom that I was taught at my mother's knee tells us that "what is worth while doing *should* be done well, and that cleanliness is akin to Godliness." I may have modified the above, but they were given to me in such manner that they have left their impression. And I will say, gentlemen, that you should inform your patients that Riggs disease is curable; that pyorrhea alveolaris will only be cured when the cause is removed; that is, when the general health is good, and only ameliorated if such conditions cannot be gained, but will return again upon the breakdown of the patient.

Dr. Lenox Curtis.

I am somewhat of a cook, and I believe that when porridge is cooked it requires to be stirred from both ends. It should be stirred from the beginning and also at the last end of the cooking, and the object of stirring it at the last end is as important as that at the first, for it is to prevent it from burning. The essayist did the stirring in the beginning, and now it is our turn to stir the porridge, and I am going to take a hand in its stirring so that it will not be spoiled in the making.

I admire the creed and teachings of Dr. Smith; he certainly has the right idea of the first principles of dentistry and of health. His crusade will not only have a beneficial, but a lasting influence on the profession, and especially on prophylaxis. He has studied prophylaxis; he knows it, and he has come here and told us what he knows. He has also told

us what he does not know. He has guessed at something, and made assertions concerning something about which he apparently knows nothing, and he had no right to do that. So I take exception.

I believe he is right in a large majority of what he says on this subject, but I must differ with his etiology of renal disease. I object to an assertion not backed up by scientific research, and I failed tc hear Dr. Smith give proof of pyorrhea alveolaris as a renal condition. He spoke of renal disease, but renal disease is nothing but a symptom; it is not a true disease. An inflammation of the kidneys is not the primary disease; it is a symptom of disease. The profession knows that, and Dr. Smith does not know it, or he would not have said what he did last night. He knows what he said with reference to cleanliness, and that is the primary principle of dentistry, but renal disease is only a symptom, just as pyorrhea alveolaris is. Now, I am saying what I know, and I have had twenty years' experience in finding out what I know, and I have definite data to back up my statements. The cause of Bright's disease and diabetes is now being found out, and in Atlantic City, only a month ago, did we get positive proof of what Bright's disease is; and it is only a symptom, the same as diabetes. Diabetes is not a disease. Some organs become diseased just as the gums do in pyorrhea alveolaris, and the majority of people are led to believe, especially the young men, that pyorrhea alveolaris is a disease, and that everything that produces inflammation in the mouth is Riggs disease, or pyorrhea alveolaris. Don't believe it! Go on and practice as you have been practicing, doing the best you can, and practice as you have been or until you have had experience so that you become teachers yourselves, and then you are worth listening to, but you have no right to take up the time of a convention until you have learned from experience. It is not right to have men come here and take an hour and a half to read a paper which should have been read in twenty minutes. It is not right; it is an imposition upon our time and patience.

I love Dr. Smith. I love him because he is a man, every inch of him. I love him because of his scientific research. He is one of the greatest teachers the dental profession has ever seen, and they will appreciate him twenty years from now. Do not make a mistake and think that Dr. Smith is not going in the right direction; he is, and he is your teacher and benefactor, and any man who will bring out a scientific truth is. But do not go away with the idea that these things he says about other diseases, in the line of medicine, are true, for you will be disappointed in some of them at least.

The reason we have failures in the treatment of the disease is because we are treating symptoms and we do not recognize them as such. The man who treats pyorrhea alveolaris as a disease will "get left." I think

that slang expression is just as good as any; it will make an impression upon you, and that is what I am here for; and he will not cure the case; he will improve the health of the patient, for cleanliness is next to Godliness, and I think it is a little better than Godliness, for it makes Godliness; it gives you health which will make you Godly, will make you moral, and that is Godly; and it will make you a man and give you brains to think with, and as you grow older, it will make you ripe like a beautiful old nut, ripe and full of wisdom, and when we get to that point we are worth listening to.

Dr. Stockton. If pyorrhea alveolaris is not a disease, what is is?

Dr. Curtis. The gum may be diseased, but the disease that causes it is syphilis, and I know that for I have examined microscopically fifteen hundred persons that have had it.

Dr. Stockton. How far back do you go?

Dr. Curtis. I graduated in 1881, and I can go back twenty-one years.

Dr. Stockton. No; I mean how many generations back do you go?

Dr. Curtis. Usually three, and it is inherited more times than it is acquired.

Dr. Hofheinz. Dr. Register made a remark that one tissue had not been mentioned by any of the gentlemen who either read or discussed the paper, and this is, the cementum proper; and he said, if I correctly remember, that the cementum proper plays one of the greatest, if not the greatest, roles in the disease, or the symptom of disease, called pyorrhea alveolaris.

I think that is only secondary, and in my mind there is no doubt that the affection is purely local and through the gum tissue itself; that the pericementum is the tissue to be attacked first, and through the physiological condition of the peri-cementum the cementum will be influenced as the gum is, and will give secondary symptoms of pyorrhea alveolaris.

Dr. Register. It has been my experience, personally, to feel that I am a subject that has been cured of an attack of autointoxication from pyorrhea alveolaris; that I was poisoned for years by an autointoxicated condition of my system that made my life miserable. I went along for a number of years, and I had a number of physicians who gave me treatment, but I could not get away from it, and my sufferings became so bad locally that I made up my mind I would have all the teeth in my mouth affected by pyorrhea extracted. I had a few roots left, in fairly good condition, and on those had a couple of

bridges put, and I am eating on the bridges today. After those teeth were extracted, I began to get well, and have practically been a well man ever since.

A Case from Practice.

I had a patient about a year ago who was at the head of the biological department of the University of Pennsylvania. He was a sick man for several months and did not know what was the matter with him. He was in the hands of a number of physicians, and the last one of them told him to go to Europe, to take a trip, and he did, and while he was in Europe a condition of apprehension, like a great cloud, was hanging over him, and he received no benefit from his trip; but just before he came away he felt there was something the matter with one of his molar teeth, the left first molar in the upper jaw. That tooth, while it did not suppurate in the form of a genuine alveolar abscess, ran into what we generally describe as a blind abscess. When he came across the ocean suppuration took place, and a breaking down along the gingival border, and he got a little relief. When he came back home he was still in that condition, not knowing what was the matter with him, and he wanted me to examine the molar tooth, and I did so, and rather advised him to have it out. This local matter had accumulated in the mouth, and had produced an autointoxication. He said he would rather not lose the tooth if he could hold on to it, and I said I would amputate the root at the bifurcation. In that operation I use compressed air heated, to thoroughly dehydrate all of that territory, and then go in with my germicide and thoroughly annihilate all conditions of germ life. I amputated that root, and went in with drills and took away quite an area of necrosed bone. I followed that with the sulphuric acid treatment, which I consider to be the best preparation for the treatment of abscessed bone in that region, for we must remember that it is not only the surface of the bone that has to be treated, but that the bone itself is filled, more or less to a certain depth, with bacterial septic matter.

The gentleman came to me about three days after I operated, taking the gangrenous pulp and the gangrenous material away from the edge, and using the sulphuric acid in connection with the surgery. He said: "I am a well man; it was that damned tooth that was making me sick."

Another Case.

These are facts in my own practice, and I will relate one more case. A lady came to me about a year ago who was suffering with a gastric catarrhal condition. She had been in the hands of a number of physicians, and had also been to a number of dentists with regard to pyorrhea alveolaris. The last man to have charge of her said to her: "You have . . . and it is no use your trying to save your teeth; they are bound to go." When I saw her there were perhaps two or three teeth in what I call the tertiary

stage of pyorrhea! I do not think pyorrhea is a disease, but merely a phase of a disease. I gave her to understand that the work had to be done in a thoroughly surgical way, if it was to be done at all; that there would be no benefit whatever to be derived unless it was so done, and I want to impress that upon you gentlemen. Do not be afraid of the treatment in pyorrhea alveolaris, for unless the work is done thoroughly the patient might as well take a mouthful of water and squirt it out again, for it would do just as much good. This lady was suffering from a condition which ran almost into neuritis. I did nothing for that woman except to give her thorough surgical treatment for the roots of the teeth. There was a large area of the cementum destroyed, and the pericementum went with it, because it always goes with it, but secondarily.

Etiology of Pyorrhea Alveolaris.

We have only one membrane between the cementum and the alveolus, which supplies both, but is specially put there for the benefit of the cementum, and not for the alveolus. In her case I succeeded, rather to my surprise, in fixing those teeth. I did not reproduce any condition there of new growth of cementum, because I think it is utterly impossible. When the cementum is gone, it is gone for all time.

This disease will be found to be an affection first, of the cementum. Cementum is bone made up of vascular canals and lacunae; the vulnerable point of infection is at the gingival border.

The gingival border is united to the cementum; that is the way it unites to the teeth, and the gums there do not touch the enamel. There exists a recess for the reception of infinitesimal quantities of granulated calcic matter and food debris and general matter, all septic laden.

This is the initial cause of gingivitis; that may run into the peri cementum through its different stages; terminating in a pyorrhea alveolaris. The phagedenic stage may run through years without running into the pus-producing stage, cutting away the cementum, followed by the pericementum.

You will have the inflammation running to an extent that will call upon the system, call upon the white lucosites there to protect itself by a new demonstration and break down as pus. As soon as you do this the white corpuscles break down and create pus, for pus is made up of dead white corpuscles. At this stage of the disease, if ever, the system is in intimate relation.

Dr. C. S. Stockton.

If any body of men ever needed a teacher, a leader, a prophet to arise and lead them into the promised land, we do today, on this subject.

I came here with a great anticipation of being able to go home after learning here how to treat pyorrhea alveolaris. What has been the result so

far? One gentleman last night said that nine-tenths of the cases of pyorrhea were due to filthiness; the gentleman following him, who was also from Philadelphia, said that his predecessor had made a mistake, and not nine-tenths but ten-tenths of such cases were due to uncleanliness. This morning another would-be prophet arises and says that uncleanliness has nothing whatever to do with it, that you must go back to syphilis, that that is the cause of all the pyorrhea.

Dr. Lenox Curtis. Make a truthful statement of that, Doctor.

Dr. Stockton. That is the situation which confronts us today, and are we going home to treat our patients with the idea that we have been to the New Jersey State Dental Society, the high society that knows more and has better people to come before it as teachers than any other society in the country, with such results as these?

Do we not need a prophet to lead us? I think we do. I would be in favor, Mr. President of appropriating some of the money in our treasury in order that some of these men, these would be leaders and prophets, shall get to work and give us something that is real, so that these young men who are coming into the profession, and some of the old ones who are in it who do not know how to treat this disease, may learn how to do so. We do not know how to do it today, and it is a shame men should come here and talk in this way. I know I have patients with no taint for three generations or more of syphilis.

Dr. Lenox Curtis. How do you know it?

Dr. Stockton. The same way you say "you know," and if syphilis causes pyorrhea why is it that Dr. Register did not lose all of his teeth, as he had pyorrhea? (Cries of "Oh, Oh.") It is time we had an exact and true statement; we have scientific men, let them get at what it is instead of this everlasting—what did Dr. Curtis call it—rot!

Dr. Lenox Curtis. Mr. President, I rise to a point of order, and to say that I think Dr. Stockton should correctly quote the speakers. He incorrectly quoted me or misinterpreted me, and he belied the statement. Now he is leading you to think that I lied, that I said something that I know is not true, and it was something which I did not say. Why does he dare to say that he knows that for three generations there was no syphilis in that family? I will gamble one thousand to one dollar that he has never seen one report from scientific investigation as to those three generations in one family, and he has the audacity to get up and call us liars, we who have worked for twenty years to prove the cause of the disease. We are here to learn, and he has encumbered our time, at least, by such statements.

Dr. Schamberg.

We have heard of various causes of pyorrhea. Some of the speakers have told us it is purely of local origin, and there are those who maintain that it is caused in the main by constitutional difficulties. Any man who hopes to find one single cause for pyorrhea is working in the wrong direction just as he would be if he tried to cure all cases of pyorrhea by any one method.

It is indeed fortunate that these two papers have been comingled as far as the discussion is concerned, because I believe that prophylaxis is a very important factor in the prevention and cure of disease. Not prophylaxis as applied to the mouth, only, but as applied to diet, to the mode of living and environment. It has been said that the savage is free from pyorrhea—does he use a prophylactic tooth brush or any other tooth brush? No, but he leads a different kind of life from ours, and that explains it all. The monkey is free from pyorrhea until it is brought into captivity, and then when it becomes subject to the conditions that surround civilized man it acquires pyorrhea. Pyorrhea is undoubtedly a predisposing factor in the various difficulties to which we are subject, and it is only a coincidence that we find in pyorrhea patients an excess of uric acid, nor do I believe that in every one of the cases, uric acid is due to the pyorrhea.

Our treatment should be directed, in the cure of pyorrhea, to the improvement in the general health as much as to the improvement locally. The treatment of pyorrhea then resolves itself not alone to proper prophylactic measures concerning the mouth, but to the proper treatment of the general system. Pyorrhea can no more be cured by the simple removal of the calculus that forms about the teeth than can the Doctor cure a patient by removing stones in the kidney. Stones in the kidney are the result of a condition which brought about that particular result, and if the surgeon stops there, another stone will be formed before long. The same thing is true concerning pyorrhea, otherwise we merely remove the mechanical irritation and not the cause of the trouble.

Mercury when given in large doses is detrimental, but if the mouth is kept exceptionally clean, that trouble can be averted. So it is with pyorrhea. There is something behind it all which makes one person susceptible and another not susceptible. You may keep two mouths equally clean, and in one you will have pyorrhea, and in another you will have none. The treatment should be directed towards local hygiene, the hygiene of the mouth, but you must eliminate from the system such conditions as predispose toward the production of this particular malady.

The Violet Ray.

Concerning the use of the violet rays and other forms of electric light, I desire to call your attention to the fact that I have employed X rays for the past year or more, and I consider them more penetrating and more efficient as

an adjunct treatment in pyorrhea than the violet rays. Of necessity we must remove the deposit, and I believe the main use of the rays is to reach such germs as are located within the soft tissues about the teeth. The pus does not come from the calculus but from the soft tissues, and the soft tissues contain the membranes you want to reach. I think it has been proved in the laboratory that the X-rays have a germicidal influence on the various pyogenic organisms, and I believe the violet rays are better; still the X-rays will prove a valuable adjunct in the treatment of pyorrhea.

Dr. White. I have but little to add to my paper, which gives in a measure the detailed course of treatment that I have used for many years, and with which I have been able to get the greatest success. It is thoroughly understood, I think, that a poisoned condition of the mouth has an effect upon the constitution, and any constitutional lesions will have their effect upon the mouth. I have never seen anything different from that in my twenty-five years of practice, and I find that it works automatically. I know up to the present time of no agent as an application to the socket in pyorrhea that surpasses lactic acid with formalin. Formalin, you know, is considered one of our best antiseptics, and a good many years ago I added it to the lactic acid and from it, as I have said, up to the present time I have had my best results.

This afternoon I will show you models of genuine cases in my practice. The possessors of the originals of each will, I think, have their lives lengthened. They have increased in flesh, and as it happens, the three cases I have are those of ladies, so it has brought roses to the cheeks, and I assure you the patients are very grateful.

One case I will present this afternoon is now in its fourth year; I had the pleasure of seeing it only about Friday or Saturday last, and notwithstanding it is four years old, as we might say, there is not a red spot on the gum anywhere as large as a pinhead, and nowhere is there any sign of inflammation whatever, and the gums are as pink as the patient's lips.

I think you will be interested in my models because they are not toy cases, but cases in actual practice, and show, I think, very excellent results. To say that I do not have my failures would be stating an untruth. I have a great many failures, but try to profit by them, and in so doing I have been able to pursue what I call a simple course of treatment, and it is more or less constitutional as well as local; it is also greatly influenced by environment and manner of living, as I have suggested in my paper, and those of you who attend the clinic this afternoon will see results which I think will be gratifying to you, I know they are to me.

Dr. D. D. Smith. It is said, I believe of Mr. Roosevelt, our esteemed president, our future president let me say as well, that he is loved because of the enemies he has

made. I think if I ever come to be loved because of the enemies I have made, I shall be the best loved man in the dental profession. I have made them everywhere. If it is necessary to make them to enforce prophylaxis, I rejoice in it.

I would like to see the gentlemen of the present carrying the dental profession into the position it ought to occupy, and the question is: Will they do it? The men who are accepting these theories and taking them up, are the young men. The old men are the ones who are talking about pyorrhea, misconceiving entirely the point of my paper of last night. I was not talking on pyorrhea, and if you think I was you are very much mistaken. I have written a paper on pyorrhea, some copies of which I have with me and would like you to have, but my paper was on oral prophylaxis. What has oral prophylaxis to do with pyorrhea? It prevents it absolutely. What does it do for gum tissue? It takes away the sensitiveness of gum tissue. What does it do in relation to the re-formation of festoons of the gum? They always re-form under the influence of prophylactic treatment. I have never seen a case yet where they will not re-form, and re-form perfectly. You can fill the outside of teeth without the use of the rubber dam under the prophylactic treatment; dentine becomes less sensitive under the prophylactic treatment; patients come to you and do not say, "Oh, I hate to see you, Doctor, I don't like to come into the dental office, I dread it;" but they come and they say, "I never go out of your office, but that I feel better, my whole mouth conditions are better, my whole health better.'

Dr. Register presented it beautifully this morning when he was telling us about the extraction of pyorrheatic teeth. While I believe that there is no such thing as a blind abscess, yet the abscesses we call blind abscesses are open and exposed to our view, and we understand what they are today through this prophylactic treatment. They are peri-cemental abscesses and grow out of the fact that we have these peri-cemental conditions which have been unsuspected.

I said last night that Dr. Luckey misconstrued my remarks when he stated that I said every individual was tortured. I said nothing of the kind and did not intend to convey anything of the kind—it is written very plainly in the paper that every man is suffering—and I charge it upon you without any question or fear of contradiction, that there is not a man or a woman today who is not suffering for a lack of this oral prophylaxis treatment. And I will tell you another thing, that there is not a man here today, who, if he will come under the influence of the prophylaxis treatment, will not have his physical health improved if he will be patient. There is not one of you, I don't care how perfect your teeth may be, who would not be benefited by it. You see where the mind

trends always, when we are talking about these things. Dr. Luckey's mind turned immediately to a violent toothache; that is what he thought I intended to convey. A man need not necessarily have a violent toothache to be under restraint in regard to these conditions—not at all. He may be suffering, and yet as I said in my paper, be entirely unconscious of it; yet I claim, and I will show it is true if you will listen for a minute, that such is the fact. In the morning, when you arise, rub your finger over your teeth and expose it to the air and smell of it, and how many of you will like the smell? There is not a single individual here who is not in that condition. We must recognize that when we expose all of the surface of the teeth we have from twenty to thirty square inches of surface, every bit of which is infected surface unless it has been cleansed just as our hands must be cleansed after use of any sort. How much more infection is there between the teeth and in the recesses which are inaccessible, than on the surface of the hands?

Who are the gentlemen who are talking against these methods here? They are not those who have been in my office and seen the results of that treatment. There is a man who sits here in front of me from New Haven, Dr. Gaylord, who came to my office a little less than a year ago in an entirely doubtful condition of mind. He did not believe that I had anything more than any one else, and he watched me with the greatest care and watched my patients and examined them most critically until he had seen about twelve or fifteen of them. He had supposed at first that I was exhibiting selected cases, and not those coming in the ordinary course of practice, and it was not until after he had become convinced that he was watching a regular line of practice, that he threw off his reserve, and since that time has been one of the enthusiastic men in the profession, in the advancement of this line of dentistry.

So you will find that not a single individual now takes that stand, with one exception. There is one man on your programme today as a clinician who has had the audacity to stand up and say that Dr. Smith is a quack. I would not know him if I were to see him, but why did he say that? Simply because the editors of the *Evening Telegram* came to me and wanted to print my article on Systemic Infection due to Natural Conditions, for the benefit of the public, and after it had been published in two dental journals I allowed them to use it, and he supposed, I presume, from his little, narrow, contracted point of view, that I was doing so for the purpose of getting practice. I believe I turn away more practice every year than he has in six months.

In regard to Dr. Register's atomizing action, it may be a very good thing, but how much better is it to do just as he said was done in his

own case, take the thing out of the mouth? You do not want to sterilize it but take it out of the mouth, otherwise the condition returns and you must keep at it perpetually.

There was one man who beautifully expressed it, I think it was Dr. White. He said it was automatic. That is just what it is. It comes into the mouth and goes into the system, and comes back into the mouth through the saliva and the salivary fluids and is absorbed into the system.

The President. I have great pleasure in introducing to you this morning, Dr. N. S. Jenkins, of Dresden, Germany. He will speak to you on "The Advances of Porcelain Art in Dentistry."

(Dr. Jenkins, who was received with loud and continuous applause, then read his paper.)

Discussion of Dr. Jenkins's Paper.

Dr. Joseph Head. I, in behalf of the users of high fusing porcelain, state once for all, there is no antagonism between the users of the high fusing body and those of the low fusing body; that those who work with the high fusing body stretch their hands across the sea to the workers of the low fusing body on the other side, as well as to those here. We have nothing but respect and love for Dr. Jenkins and his friends and fellow workers, and I know the feelings they have for us are of exactly the same kind.

I feel it necessary to make this preface, because in some way there constantly arises the feeling that there is an antagonism between us, that the workers in the high fusing body have a desire to surpass the workers in the low fusing body, which is not the case. There is only the desire that the best in porcelain work shall be accomplished, and I know that can only be done by the careful threshing out of all of the good both in the low and the high fusing bodies and I wish to offer to Dr. Jenkins our heartfelt congratulations on his paper and an assurance of our respect and regard for him and for the fine work he is doing in bringing the real value, the true value, of the inlay to the dental world and to the world at large.

To speak more specifically, I have in the course of four or five years noted the permanency and great value of the low fusing body; I have seen fillings of which no one need be ashamed, that anyone might be proud of. I have had the hope which I entertained for the low fusing body realized. I believe that it has come to stay, and it is with great pleasure that I see it has been given to Dr. Jenkins to make the first low fusing body that would stand in the mouth, and I consider that a great triumph, for up to this time the low fusing body has, with hardly any exception, deteriorated from the great amount of flux that is used in its manufacture.

But I will state also that the high fusing body has not been backward

in its results; that we feel it has accomplished all that we could hope for it; and we feel that it also has come to stay; that it has an abiding place in the dental world; and while we look with gratification and joy at the fine results produced by the users of the gold matrix, we cannot but feel that we get equal results with the high fusing body, and you will pardon the slight feeling of partisanship which will come in when any man works in and loves any particular method—we perhaps think we get better results with the high fusing body than we get with the low, although we do appreciate the skill and the ability of those who use the low fusing body.

So I can only say, as Dr. Jenkins has said, that the inlay has come to stay, and I cannot but feel that it is going to largely supplant all other forms of filling, for with our modern methods of inlay work it is as easy for the patient to have an inlay inserted as to have an ordinary cap, bridge or cement filling inserted, and that, with patients who are nervous, weak, sick or susceptible to dental irritation, is a great advantage, and one that the users of gold will find hard to overcome.

There is, however, a thing that we have got to appreciate with considerable self-satisfaction. The great so-called source of weakness with the inlay, the line of cement, has proved to be a bug-a-boo and to be no source of weakness at all. We have found that where the line of cement is sufficiently fine to allow of little capillary attraction, it is practically permanent, and never washes out; that where the line is sufficiently large to allow a constant wash of the saliva with this solvent material constantly going forward and backward in it, some dissolution will take place as would in an ordinary cement filling.

So the low fusing advocates and the high fusing advocates are as one body, as one family, with perhaps the slight rivalry which exists between brothers, but as brothers we feel that the inlay is the filling of the future, and that if a good fit is made, a joint that an ordinary mechanic can make with care—not an extraordinary mechanic—beautiful, permanent work will be the result.

Dr. R. H. Hofheinz. It is quite difficult for me, who have met Dr. Jenkins in his own home repeatedly, to remain in a reasonable path of common sense and not soar to the realm of personal enthusiasm in discussing his paper.

You do not wish me to eulogize Dr. Jenkins at this late date. It would be carrying coals to Newcastle and it is too hot for that work.

Porcelain seems as indispensable to a first-class practice as a diaper to a baby; without it a great deal of unesthetic work is done. Time has not quite performed its leveling process between the optimism of the enthusiast and the pessimism of the sceptic.

The technique of porcelain inlays is filling our dental journals ad

nauseam; everybody thinks he is speaking a prophetic utterance, when most of them give us kindergarten lessons.

The question of future technique seems to reduce itself to (1) making metallic matrix in the mouth, or (2) taking an impression and relegating all work to the laboratory. A perfection of the latter will do away with the consumption of much time of the operator.

When at Dr. Jenkins's office, I was practically struck by the systematic way in which he accomplished his part and by the great use he made of his assistants. The man who is unable to economize, in time will certainly have to wear, as some one expressed it, hand me down clothes. While in Dresden I saw specimens of bridge work such as Dr. Jenkins is passing around. I tried repeatedly with a small hammer to separate the Jenkins body from the English tooth. I succeeded in breaking the tooth each time.

Porcelain has become a great factor in our profession, and when the names are mentioned of the men who deserve the greatest credit for its development, the name of Dr. Jenkins will scintillate.

Evening Session—Discussion Continued.

Dr. William H. Trueman.

While listening to Dr. Jenkins paper, when he said, referring to the wonderful results achieved by the skilful use of cohesive gold, "the practical limit of improvement seems to have been reached," the thought came to me, how few realize how long a time it has taken the profession to reach that point. We do not know when, nor yet where, the use of gold for repairing the ravages and arresting the progress of dental caries originated; we know, however, that more than a thousand years has elapsed since Mesue, a distinguished Arabian physician, recorded its use for that purpose. Fauchard, in his work published in 1728, speaks of the use of gold, and tin, and lead; of the methods of using them; of their advantages and failings, and expressed a decided preference for lead in all places where its color was not objectionable, on account of its softness favoring accurate adaptation to the cavity walls. Since his day, vast changes have been made in the preparation of gold for dental use, its various useful peculiarities have been developed and utilized until step by step, as Dr. Jenkins so well says. the expert dentist has reached a point so near perfection it seems as though no further improvement can be made.

Progress in Porcelain Art.

Porcelain was introduced to the dental profession about 1779, and for a number of years much the same points were discussed as we are discussing today. The controversy then was between the advocates of hard and soft porcelain, as it is now between the advocates of high and low fusing. It was said that the soft porcelain was porous, that it

absorbed the secretions of the mouth and became foul; that it did not retain its color was friable, and unable to withstand the wear and tear of mastication. Of the hard porcelain it was said its shrinkage during the baking process was so great as to prohibit its use for dental purposes. Little by little these difficulties have been overcome until today, looking over the grand exhibits in the adjoining room, we feel like saying, perfection has been reached—but how slowly! In 1831, a distinguished English dental writer speaking of porcelain teeth said that they might do for quacks and charlatans, but no reputable practitioner would think of using them. Ten years later, John Tomes, in a little monograph upon artificial teeth, said that while they might do to replace the molars and bicuspids, natural human teeth should always be used for the front. In another ten years, their manufacture had so far advanced that they were generally accepted as substitutes for those of organic origin previously used.

Progress in Crown and Bridgework.

Again, take crown and bridgework, how slow has been its progress. Mouton, in his little work upon prosthetic dentistry published at Paris in 1746, advocated the use of gold caps for restoring to usefulness badly worn and broken teeth, and said their fronts should be enameled to resemble the color of the teeth adjoining. From that date on, gold caps are referred to in dental literature again and again; they were never lost sight of. The advent of plastic cements proved to be the needed missing link, and made possible the crown and bridge work of today. It took more than one hundred and fifty years to develop from the suggestion of Mouton, the specimens of bridgework such as were displayed in your clinic today.

Porcelain Fillings.

The first record of porcelain fillings, so far as we now know, is found in a little work by Mr. J. L. Murphey, published at London in 1837. He states he had been using them about two years with much satisfaction for fillings in conspicuous positions. He used glass, or a low fusing porcelain. His suggestion was by no means lost. Others took it up and struggled on, trying by this method and by that, to overcome the many difficulties attending its use. The plastic cements, the cultivation of manual dexterity among dental operators, better methods, materials and appliances, not the work of one man, but of many, covering a period of nearly seventy years, has made possible the beautiful porcelain fillings, and the many ready methods of producing them illustrated in the clinic this afternoon.

Originators of new ideas should bear these facts in mind, and not be impatient if the profession fails to promptly and enthusiastically accept their creations. We ourselves should remember that good and useful ideas are born; they grow and develop, and are useful to us in proportion

as we appreciate, study to seek out and appropriate the good that is in them.

Although porcelain fillings have reached their three score years and ten, they are undoubtedly as Dr. Jenkins suggests, "at the beginning of their career." They have proved worthy of acceptance; the profession has accepted them. Where they can be used and where they cannot will depend upon the operator's expertness; where they should, and where they should not upon his judgment. The preference for high or low fusing, I note as time passes, is becoming a mere personal matter. I have been using the Jenkins enamel because, being limited to a gas furnace, it is more convenient. In all probability, I shall continue to use it, because I find it satisfactory.

Dr. Fossume. I wish to mention that in the construction of the matrix I use a set of burnishers made of ivory which I designed and constructed last winter. Dr. Head stated that if the joint between inlay and enamel edge is so close as to prevent the mechanical washinig out of the cement, thus permitting of little capillary attraction, the cement will remain intact. On our matrix depends the fit of the inlay, and in burnishing the thin metal into place ivory seems more congenial and the metal works more plastic and adapts itself better and does not pull away and spring as where steel burnishers are used. This saves time.

As to the comparison of the two bodies, the high and low fusing, permit me to say that they are both invaluable, one kind to one man, the other to another. I have found that the low fusing in very large pieces will become porous, and change shape and color in the baking, and the best results are very difficult to obtain. In such cases I think the high fusing is preferable. In smaller cavities gold as a matrix is far superior for obtaining a perfect joint. Porcelain inlay work is mosaic work, and the fundamental principles are: to have the floor of the cavity reasonably flat and the walls reasonably parallel, so that the finished inlay be block-shaped, and when in position, in the cavity, it does not rock nor slide but lies solidly in place. I do not have inlays come out except where their position is such as to be actually knocked out by mechanical force in mastication, and I believe teeth are as well preserved by inlays as by any other material.

Dr. Jenkins. The importance of the porcelain inlay is a matter which it is not worth our while to discuss at this hour. In the paper which I had the honor to read before you yesterday, I merely gave a resumé of the advancement which has been made in the porcelain art in dentistry. It has made prodigious progress within the period of the first five years—taking that as a unit,—and the progress it is destined still to make no man is in a position as yet to imagine. It is a

logical and it is an accurate method of preserving the human organs from the ravages of decay. But like every other method it requires accuracy, it requires intelligence, it requires patience. But unlike the old ways of operating, its methods can be reduced to an exact formula and so that any intelligent man may certainly be able, if once he accepts the theory, to make restorations which are of the greatest possible advantage to the patient and which aesthetically are unsurpassable.

We are only upon the threshold as it were of this method of practice. To what it may develop none of us can by any possibility imagine. We are only to be grateful that we have progressed so far, and hope that the time may soon come when every intelligent dentist will be able to make such restorations as may not be detectable to ordinary observation, and which shall give to the patient that degree of comfort which previous methods of operating have never possessed.

Central Dental Association of Northern New Jersey.

October 17th, 1904.

President Stockton called the meeting to order and in his opening remarks congratulated the society upon the clinics which had been held during the day and incidentally proposed the health of Dr. L. J. Mitchell, of London, England, which was drunk amid loud applause, Dr. Mitchell responding thereto.

Dr. Mitchell, in the course of the evening, invited the association to meet with the European Society of American Dentists, at Geneva, Easter, 1905.

A quorum being present the roll call was dispensed with and all business postponed until after the reading of the paper.

In the absence of Joseph Head, M.D., D.D.S., of Philadelphia, Pa., Dr. Herbert S. Sutphen read his paper.

Discussion of Dr. Head's Paper.

Dr. Ottolengui. Mr. President and Gentlemen: I am so accustomed to have a lot to say and the paper was so short, and with so little in it (laughter), that I really feel embarrassed. Am I obliged to confine myself entirely to the subject of the paper?

The Chairman. Not at all.

Dr. Ottolengui. I think I will for a moment. I agree with the essayist in this respect that the idea of making fillings in layers of color in order to produce the desired shade has always seemed to me more of a hypothesis or theory than a practical

probability. I cannot speak advisedly on the subject, because those who use that method employ the high fusing body and what is necessary for producing colors in a high fusing body I know personally nothing about, for I have never used it. That makes me admit that this shadow problem about which Dr. Head has preached for so many years is one that I have never met. Whether that is due to the fact that I used the Jenkins body or not is a question, because there are two possibilities. One is that my ideals or my eye for color may not be so good as Dr. Head's. I may be contented with something less than he is satisfied with, but I really think there is something in the other explanation, and that is that by using the Jenkins body I do not necessarily meet with these shadow problems. Now there are advantages in this body. It seems to be easier to manipulate. I do not pretend that everything can be done, but there is a quality in that body which I have never seen in the other, and that is not only color, but what I call "lifelikeness." This material resembles the tooth substance in that it seems to refract light very nearly as a tooth does, and consequently to those of us who use the Jenkins body, Dr. Jenkins's rule seems to cover all that is necessary and that is, if the inlay is to be placed where it is to be in shadow it must be made a little lighter than the tooth which is to be matched, as for example in an approximal cavity, which is entirely in the approximal surface, the shadow falling there, if your body is a little bit lighter than the tooth it is sufficiently darkened by the shadow to make it resemble the tooth itself. Vice versa if it is in an exposed place as on the labial surface of the incisors where the light strikes it, and on account of the curve of the tooth it has a high light, it is better to make it a little bit darker.

Overbaking Porcelain.

The essayist has touched on the question of overbaking. It seems to me that that is another advantage in the Jenkins material, that you have the actual baking of the body very much more under control than seems to be the case with the high fusing materials which are used in the electric furnaces, unless possibly the new furnace of Dr. Price has settled that problem; from those who are using the old furnaces and the old methods we constantly hear of overbaking. With the Jenkins body as the successive stages of the body are baked, a slight under baking can be done and the final baking brings the whole mass up to a full fusion and a high gloss. I assure you that by that means you can on every occasion reproduce the color of your sample. As an evidence of that I want to tell you something that was shown by Dr. Price in Cleveland at a clinic. Dr. Price, when he produced his new furnace, made some little compressed pyramids of the various bodies which he numbered and labelled so that when they were returned to him he could know exactly what body had

been sent out. We will say, for instance, he was sending out some Brewster body; he sent it to a man who uses the Brewster material, and when he sent out the Jenkins body he sent that to a man who used the Jenkins material, and he asked that these little masses should be baked thoroughly according to their methods and returned to him. He took these little returned pellets, say, for instance, the twenty specimens of Mr. Brewster's body baked by twenty different men and he put them all in a line on a card; he did the same with the Jenkins material, and he did the same with eight or ten different porcelains on the market and of all, excepting the Jenkins material, he received about twenty different shades, all of which had come from the same body. With the Jenkins specimens, which came from twenty men who were using the Jenkins body there was scarcely more than half a shade difference between the lightest and darkest of the samples. It does not seem to me that that means the men who were using the Jenkins body were more skillful, but that they had an advantage over the men who were using the other bodies in that they could better watch the fusing and determine exactly when the bodies were properly baked. It is for this reason, and because I have used this body only, that I feel I know very little about the shadow problem, which does not occur in my practice.

Dr. L. J. Mitchell, London, England.

I think in connection with the color problem, really the right thing is to have an inlay satisfactory to the eye at the proper distance, regardless of whether it is the color of the tooth or not; to my notion that is the thing we are working for. Whether we work with a high or low fusing body, the question is how that can be produced in the easiest and most satisfactory way. We all know it is easier to put an inlay in a dead tooth and make it approximate the color, than in a live one. The difficulty in live structures is to simulate vitality.

Building Inlays in Layers.

As far as the essayist went in connection with the sub-stratums of porcelain it has been the practice of ourselves and of a number of our friends on the continent to use a very dark layer of enamel as the base of practically all fillings; it does not affect the color of the various enamels put over them, but you will get something that will exclude practically the reflection, because the trouble is that inlays, to a very large extent, are more or less opaque; as soon as we grind off the gloss underneath to assist in retaining them, in connection with the cement, as well as by the curves we cut in them, we destroy the translucency and make them more opaque. So that by making it darker underneath it enables us to a very large extent to discount the difference that we note between an inlay before it is set and after it is in place with the cement around it.

In connection with the coloring of inlays we find that if, instead of mixing two or three different colors together to get the desired shade, they are put in different places we get a color which while not uniform perhaps will harmonize better with the tooth structure than if all the colors are mixed together before they are put in the matrix, and another thing we have found is that they can very easily be painted; there is no trouble in painting inlays as you would paint artificial teeth, and if the first is not what you want, it is a small matter to grind off the surface and obtain the color.

There is another point worthy of consideration and that is that we all know that in the course of time enamel wears down appreciably; if a porcelain filling put in this year could be seen four or five years hence an edge would be found all around it, and the filling would be standing up beyond the enamel wall, so that it seems to me it is a great deal better to have these fillings slightly below the surface than flush with it.

Cavity Formation.

Getting off the color line for just a moment I would like to say that in connection with a number of models I saw today I noticed that very few of them had any retaining form in the cervical portion of the cavity. In other words they were made either perfectly flat in the base or with the slant towards the outer portion of the tooth, whereas it is a well recognized principal, I think that the form should be one wherein the interior is deeper than the cervical margin. Another thing in connection with that; I also noticed that there was no pretense of making the coronal portion of the cavities of a retaining form. It is just as easy to draw a matrix from a cavity that has a retaining form occlusally as it is to draw one where the walls are parallel or turned towards the outer side of the tooth. I think the more we can do towards getting away from dependence on the cement the greater respect the profession will have for the superiority of this operation, which will be the operation of the future.

I think, probably, on the other side we appreciate more the value of porcelain fillings than you do here, for if you go to any of the capitals of Europe I doubt very much if you will see any gold in many places where here we see so much. People there would rather have a bad looking cement filling than a good looking gold one.

Another point in connection with this is the fact that where you have two fillings that are inter approximal you will find that the reflection from one to the other is almost the same in proportion as is found with two gold fillings. I believe Dr. Jenkins has touched on that in his papers; that it is better to have the fillings lighter between the teeth where there are two that are opposing.

The question of high or low fusing inlays enters to a very small

degree into what we do, for different operators with different materials will have equally good results. As far as we on the other side are concerned there is practically no controversy about the two substances; we have a number who use the one and a number who use the other, and still more who use both, having regard to the places where they use them. Where they desire to build a point on a tooth they use a high fusing body very often, and they use the Jenkins material, too.

But we have arrived at a time now where people will go about looking infinitely more presentable, through the use of porcelain, than they ever have before, and I believe we will find more teeth saved through the influence of porcelain than we have during the number of years we have all been associated with the application of gold in teeth, and that gentlemen, I think, is saying much.

Dr. Capon, Philadelphia.

This shadow problem has not been one to me as it has been to the essayist. Some years ago I remember, he wrote an article on the shadow problem in connection with inlays. I asked the question then, "What does Dr. Head mean by the shadow problem?" Those whom I asked said they did not know, and I do not know to this day, and I think it is a kind of a bug-a-boo. It is true I have had shadows, but I blame myself for them. I doubt if there is anybody in this assembly, nay more, in this large country, who has followed this work closer and made more inlays of porcelain fillings of any kind than I have and yet in all these hundreds, I may say thousands, of operations I have not found the shadow problem interfere in any way whatever. I have had complaints of a few and I have seen them myself without any comments in some cases, probably about a dozen. And why was it? It was the fault of the operator, and I was the operator. It is many years since I found out that I must overcome this opaqueness of the material, or in other words the casting of a shadow by the opposite tooth or by a section of the tooth filled, and I do it by using a lighter shade of inlay.

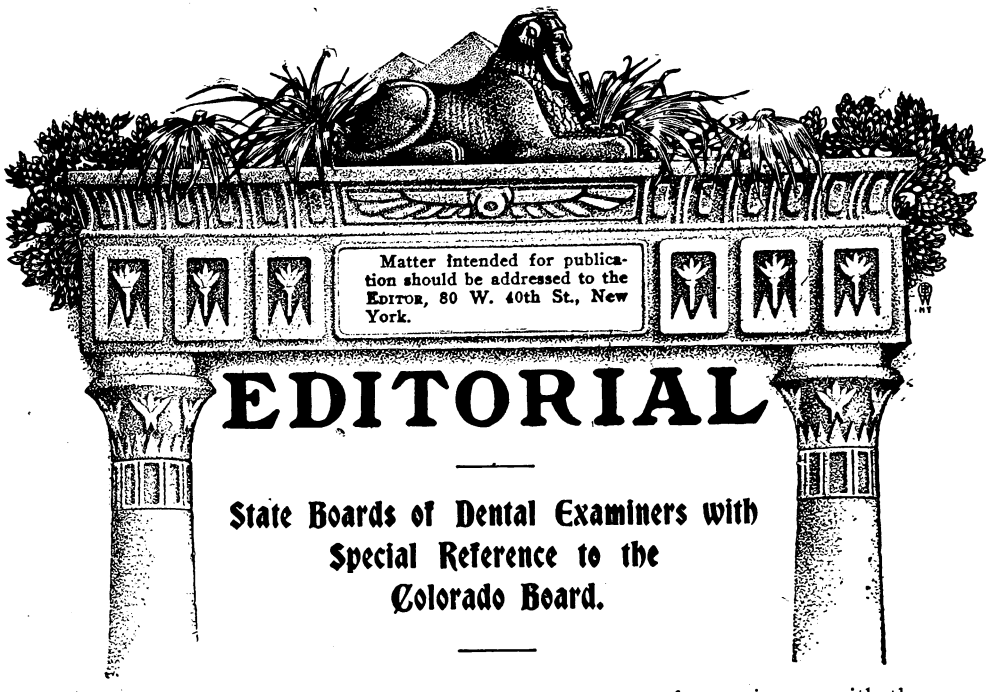
It was my privilege to give a clinic before you today, and it may be that many of you did not see what I did; those of you who did know that I inserted an approximal filling and the corner of a right central, and I ask you all, as I asked you then, did you see any shadow, although I left them to you at a time when they were not at all as they should be as a finished product. I saw none and I know you saw none, because there was none, and the way to overcome the shadow is by the use of a lighter shade; making the color, as Dr. Ottolengui has mentioned, either darker on the labial surface or on the surface exposed, or on the approximal surface, at least one shade, probably two, lighter. Today it was at least two shades lighter than the tooth itself, and yet it looked a fair match. As

long as we have an opaque substance, the cement, to attach the inlay to the natural tooth we will have a certain amount of shadow. You cannot overcome it, I cannot overcome it, and, therefore, there is no use fighting the matter. Coloring cement to approximate the shade of the inlay has been my practice for many years. I know that many using porcelain use one or at most only two cements for the attachment of their inlays and in that way they sometimes get a long distance from the desired effect. Therefore I advise, I practice and I preach that the cement should be considered as much as the inlay, or at any rate to a very great extent, and in that way lessen the difference between the porcelain and the natural tooth itself.

I have nothing to say concerning the preferences of those who use the Jenkins or low fusing body. I take off my hat to all of them because I am led to believe from what they say that they are so expert that nothing ever goes wrong with what they do! Therefore I cannot dwell on this subject—but I believe they have troubles they do not say anything about.

Dr. Ash. My experience has been that if I have had any difference between the shade of the inlay and the shade of the tooth after the inlay has been set it has been due to the fault of the operator. I have never had any experience with the method of building up in layers of various shades, and I cannot say from personal experience whether that is the proper thing to do or not, but I can say that in my hands the Jenkins porcelain has been sufficiently satisfactory so that I have been able not only to please my patrons, but in the majority of instances I have been able to please myself, and I feel that if I can satisfy myself, my patients ought to be satisfied.

On motion adjourned.



EDITORIAL

State Boards of Dental Examiners with Special Reference to the Colorado Board.

We have admitted to our pages two accounts of experiences with the Colorado State Board of Dental Examiners, and in this issue will be found their reply, criticising us for accepting at least one of these communications. Dr. Spooner's "experiences" were published, not because we take any interest in Dr. Spooner, but because we have long contended for the right of a dental practitioner to move from one State to another without hindrance, and because here seemed to be a graphic account of the refusal by one State to license a reputable practitioner from another. Some members of the Colorado Board, and some of their friends, have chosen to construe this publication as a reflection on the members of that board. In this view they have entirely overlooked the vastly deeper significance of the situation. The Colorado Board decided that Dr. Spooner was not sufficiently competent to practice dentistry in the State of Colorado. Now, it must be admitted as a logical fact, either that the man is competent to practice anywhere, or else fit to practice nowhere. It cannot be that he is good enough for New York and not good enough for Colorado. Consequently, either Colorado should have granted him a license, or else New York never should have done so. If this contention is logical, then one board or the other has incompetently examined this man. This is the crux of the whole situation. This is why we accepted

Dr. Spooner's article. It affords an opportunity to arouse a discussion of the methods of State boards; a discussion that cannot but have a wholesome result. Let us at once, then, dismiss the personal, or seemingly personal, side of this matter. All the gentlemen of the Colorado Board may be excellent gentlemen; they may be equally excellent dentists; but it does not necessarily follow that they are capable to fill the positions of examiners. Whether they are or are not need have no place in the present discussion; it is a question for Colorado to decide.

Relations between State Boards.

The United States is a peculiar country, made up of separate sovereign States. These are one unit in time of war, and many units in time of peace. Thus each State has its own laws, and among these are the dental laws. Many of the dental laws give power into the hands of examining boards which even the courts cannot set aside. Such language as "the candidate must have a diploma from a college considered reputable in the opinion of the board" makes the board the final arbiter, and confers a power which the State might well hesitate to grant to any but Supreme Court judges. In similar manner the method of examining candidates is usually entirely discretionary with the boards. Now, how are these boards chosen? Let us be frank; let us be honest. Usually, the vacancy in a board is filled at the dictation of the small band of executive officers, or political bosses, as the case may be, in the State Dental Society. Did anyone ever hear of a candidate for the position of examiner being made to pass an examination to prove his fitness to examine others? Yet these men are a part of the police system of their States, and usually the commonest policeman must pass some sort of examination before he can be appointed. Enumerating the total number of examiners in all the States, is it believed that all of them are proper men in their proper places? Or counting the boards as units, is it probable that every board in the United States is properly conducting the examinations of candidates for license? If not, an inquiry into State board methods is both right and righteous.

Interchange of License.

Whenever a State board refuses a license to a practitioner from another State, it casts a slur upon the State board of the State from which the candidate hails. In our new department of "Dental Laws and

Licenses" will be found the licensing requirements of nearly all the States. One question asked of all the secretaries was, "Is there any special examination for practitioners in dentistry?" Nearly all replied negatively. Some even resented the question and became emphatic in their reply, "No special examinations." Yet just there is shown the inadequacy of the dental statutes, or else the incompetency of the State boards.

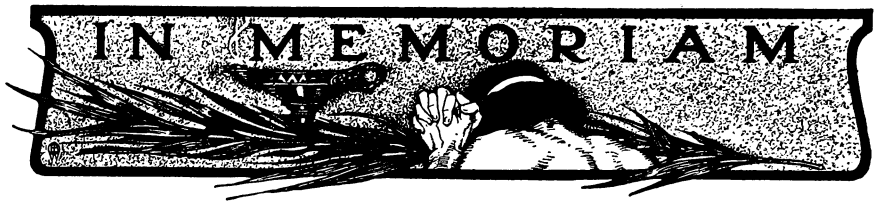
In common justice, there should be interchaange of license, or else there certainly should be special examinations for practitioners. It is well enough to make the young graduate locate anatomical structures, describe chemical reactions, give formulæ for alloys, the first and second names of micrococci and other theoretical evidences of knowledge. But when a man announces that another board and the people of another State, for a term of five or more years, have found him capable as a dentist, the truth of this statement should be verified by an examination along lines which would rigidly determine whether or not he could sustain his claim of being a "dentist."

Moreover, as the main reason which compels a dentist to abandon practice in one section and move into another State is usually ill health, the boards in States like Colorado and California, where the climate is such that the sick are healed, should feel peculiarly constrained to grant an absolutely fair chance to such of their fellows as cannot live elsewhere. To do this, to recognize the licenses of other State boards, and to grant interchange of license is to create of dentists a great fraternity. To do otherwise is to be guided by the latest methods of trades unions, which exclude competitors.

A Very Important Meeting.

The Second District Dental Society of the State of New York has for several months been preparing an exceedingly valuable programme for its February meeting which occurs at the Kings County Medical Society Library Building, 1313 Bedford avenue, Brooklyn, N. Y., on the evening of Monday, February 13th. The first paper of the evening will be read by Dr. Herbert A. Pullen, of Buffalo, the title being, "Conservative Teachings of Occlusion," and this will be followed by a paper by Dr. S. H. Guilford,

of Philadelphia, entitled, "When is Radical Treatment Justifiable in Orthodontia?" The real topic for discussion is the advisability or inadvisability of extracting teeth in connection with the so-called regulation thereof. This meeting is not so much a discussion of the subject among orthodontists as an expression of the view of orthodontist specialists directed towards the general practitioner and to this end immediately following the two papers, there will be exhibited lantern slides showing cases from the practices of Drs. Angle, Watson, Hawley, Ketcham, Lourie, Roberts, Stanley, Barnes, Goddard and others. By this practical demonstration of real work together with the discussion and arguments of both sides, it is hoped that the pernicious habit of unnecessary extraction in crowded arches will be minimized. There is little doubt that the gathering will be large and impressive, the Second District Dental Society has extended invitations not only to all the local societies about Greater New York, but also to the societies of New Jersey, Philadelphia, New Haven and Boston, and we are authorized in behalf of the Society to offer a hearty invitation to all practitioners interested in this subject.



Dr. Horatio G. Mirick.

The Second District Dental Society of the State of New York has learned with profound sorrow of the death of our friend and fellow member, Dr. Horatio G. Mirick, which occurred December 22d, 1904. Dr. Mirick was born in Worcester, Massachusetts, October 15, 1832 and at eighteen years of age commenced the study of dentistry in his native city. In 1852 he came to Brooklyn and associated himself with Dr. James E. Miller. At the end of one year he opened an office of his own and continued to practice until 1892, when he retired to enjoy a well earned period of ease and rest from the active duties of his profession.

During his professional career he took an active part in every movement tending towards its advancement. He was a charter member of this society; was a delegate from it to organize the State Dental Society; was its first treasurer; for two terms was its president, and until his retirement was rarely absent from a meeting.

Dr. Mirick had an extensive practice among our very best people. He was an able and conscientious dentist, a genial companion and a man of the strictest integrity, beloved by patients and friends. In his death, this society and the community at large have sustained a great loss.

Resolved, That our heartfelt sympathy be extended to his bereaved family, and a copy of the foregoing minute be engrossed and sent to his widow.

William Jarvie,
F. T. Van Woert,
Wm. J. Turner, Committee.

Dr. William C. Hepburn.

The Second District Dental Society of the State of New York is again called upon to mourn the loss of a beloved member, Dr. William C. Hepburn, who departed this life Wednesday, October 19th, 1904. Dr. Hepburn was born in New Rochelle, N. Y., in 1860, being at the time of his death forty-five years of age. In the year 1878 he began the study of dentistry with Dr. Eleazor Parmley Brown, graduating from the Baltimore College of Dental Surgery in 1882. Shortly after he located in his native place where he practiced his profession with credit to himself and faithful

service to his patients until death closed forever a most useful career. He is survived by a widow and four daughters. Dr. Hepburn was a member of the Royal Arcanum, the New Rochelle Boat Club and other local organizations.

Resolved: That in the death of Dr. William C. Hepburn, this society has suffered a great loss. By his cordial and friendly manner he gained many friends, who looked upon him as a consistent Christian gentleman.

Resolved: That we extend expressions of sympathy and condolence to the bereaved family, and,

Resolved: That a copy of these minutes and resolutions be placed upon the records of this society and a duplicate sent to the dental journals for publication, and also the family of our deceased associated.

FRANCIS P. HAMLET,
L. G. WILDER,
F. L. ALLYN, Committee.

Dr. Henry Hubbard Bowles.

Dr. Henry Hubbard Bowles died at Lisbon, N. H., on Sunday, Dec. 4, 1904, of heart trouble. He was born on Sugar Hill, Lisbon, New Hampshire, July 18, 1833, a son of Caleb Bowles and Martha Goodnow.

He was the third generation of his family who have lived in Lisbon. He studied dentistry in early life and located in Lisbon in 1860. He enjoyed a lucrative practice and in 1865 built the house where he had resided while in Lisbon. He was one of the first dentists in New England to use nitrous oxide gas as an anaesthetic and vulcanized dental rubber for an artificial base.

In 1872 he sold his practice to Dr. D. W. Cooling and the next year located in Foxboro, Mass. In 1879 he associated himself with Mr. Seth Hoskins, under the firm name of Bowles & Hoskins and they built the now very popular summer hotel, the Sunset Hill House, on Sugar Hill, and it was opened for business in the spring of 1880. Dr. Bowles continued his dental practice in Foxboro until 1885, when owing to ill health he retired and has since resided in Lisbon. He was a great lover of good horses and during the sixties owned some fine animals, Black Dan and Joe Hooker being among the number. He was one of the oldest business men in Lisbon, a kind friend and neighbor and a gentleman, respected by all who knew him.

Never a robust man and for many years suffering from ill health, yet he was always full of hope and courage even to the end. Dr. Bowles was never married and is survived by one sister, Mrs. Mary Moulton, who kept his house. He was a member of the Masonic lodge.



Stephen G. Stevens, D.D.S.

Alumni Association.—Boston and Tufts Dental School.

Died September 5th at his home in Boston, Mass., from apoplexy—Stephen G. Stevens, D.D.S., a member of this Association.

Dr. Stevens graduated from the Boston Dental College in 1877, and was an ex-president of this Association.

He was born at Brooks, Maine, in 1844. He enlisted as a soldier in the war of the Rebellion, being a member of Company D, in the New York Frontier Cavalry.

He began his professional career in Lynn, Mass., and while practising dentistry, attended lectures at the Boston Dental College, graduating with the class of 1877. Soon after this he bought the practice of Dr. R. S. Robbins, and moved to 175 Tremont street, Boston, where he practiced for many years. Afterward he moved to 2 Commonwealth avenue, where he was in practice up to the time of his death.

In his chosen profession Dr. Stevens has filled many offices of honor and responsibility. He was a trustee and auditor of the Boston Dental College for many years. He was an ex-president of the Massachusetts Dental Society, the Connecticut Valley Dental Society, and the Northeastern Dental Society. He was a fellow of the American Academy of Dental Science, and also a member of the Boston Society of Dental Improvement.

Students always found in him a firm friend and adviser. He was a strong advocate—in the conduct of the College—of that which seemed best to him for a sound professional education. His nature was that of a strong, sincere and positive man; and this quality gained for him the respect of all who knew him.

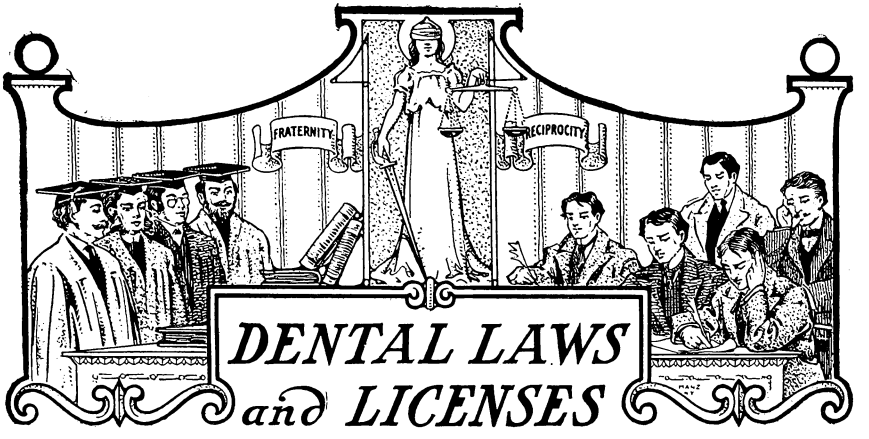
His death was sudden and unexpected. He leaves a widow.

This Association offers this expression of its grief at the death of one of its valued members.

Whereas, For many years Dr. Stevens was one among us, honored and trusted; who, by his kindly and helpful nature, won our warmest affection. In our College he was an honored officer, energetic for the advancement of the profession he loved. To those of us who knew him his memory will long be cherished. We shall miss him and mourn his death.

Resolved, That the above be placed on a page of our Records. That a copy be sent to Mrs. Stevens, and to the dental journals.

R. R. Andrews,
George T. Baker,
Edward W. Branigan.
For the Committee.



Reciprocity Between New York and New Jersey.

With great pleasure we present to our readers this month a new department of Dental Laws and Licenses. The introduction of this department arose from the fact that we are constantly receiving letters of inquiry regarding the laws of the various States. Feeling that the secretaries of State boards must be similarly inflicted, it appeared to be opportune to inaugurate a department in which reasonable questions could be answered for those desiring to obtain licenses. It has been the work of several months to obtain and arrange the information which is appended below; even now it is incomplete in certain States and for the benefit of all we suggest that the secretaries of the State boards should carefully read what is here compiled and promptly forward corrections. This matter will be given continuous publication, and as far as possible with the assistance of the secretaries will be kept up to date. One of the general aims of this department will be to aid the general scheme of obtaining reciprocal interchange of licenses between the various States. A study of the laws as given below will point out that already the Asheville resolution, first suggested in our pages, is bearing fruit and that a good start has been made towards reciprocity. It will be observed that in the heading of this department, we have introduced the words Fraternity and Reciprocity. We hope to aid in the establishment of fraternal reciprocity as well as reciprocal fraternity. It appears to be fortuitous that at the very opening of this department we are able to announce an agreement for interchange of license between the important States of New York and New Jersey. Much credit is due to Dr. Charles A. Meeker for his indefatigable labors to obtain interchange of license for the benefit of the profession in his State, and it will be observed that New Jersey enjoys this advantage

to a greater degree than any other State. It has been mainly through his efforts that the following agreement between New York and New Jersey has been effected.

Minute of Agreement between the New York and New Jersey State Board of Dental Examiners.

(1) It is understood and admitted that the standard of the professional examination of each board is practically equal, and though different in detail, is mutually acceptable.

(2) Licentiates of the New Jersey board, who have received the degree of D.D.S., or other recognized dental degree, are to be granted licenses to practice in New York State without examination on payment of the regular licensing fee, provided the preliminary education of the candidate is equal to that required by the New York statute; and licentiates of the New York board are to be granted licenses to practice in New Jersey under the same conditions.

(3) Immediately after any examination by either board complete sets of the questions used shall be mailed to the examiners of each State, to the State Dental Commission of New Jersey and to the Examination Division of the Educational Department of the State of New York.

(4) Applications for license under this interchange agreement shall be indorsed, in New York State by the President and Secretary of the Board of Examiners, and by the first Assistant Commissioner of Education, and in New Jersey by the president and secretary of the examining board and by the Secretary of the Dental Commission, and shall be accompanied by the original or certified copies of certificates of preliminary education.

(5) The names of unsuccessful candidates in each State shall be sent to the secretaries of the examining boards, and to the Educational Department or Dental Commission as the case may be.

(6) All papers connected with the examinations shall be placed on file with the Educational Department or Dental Commission and shall be public records.

(7) Those who have received a New York State license to practice dentistry granted since 1895, or a New Jersey license granted since 1895, may apply for the interchange established by this agreement.

WILLIAM E. TRUEX,
CHAS. A. MEEKER.

For the New Jersey State Board of Registration and Examination in Dentistry.

WILLIAM CARR,
H. J. BURKHART.

For the New York State Board of Dental Examiners.

Approved December 29th, 1904.

CHAS. A. MEEKER, Secretary of the State Dental Commission of New Jersey.



Requirements for Licenses and Dates of Examinations.

Secretaries of State Boards are requested to keep us constantly posted in regard to dates and places of examinations or changes in their laws that this department may be kept up to date.

Alabama. Examination required, with or without diploma. Examination fee $10. No special examination granted to practitioners already in practice. No interchange of license with any States. Examinations annually on the first Monday before the second Tuesday of each year. Secretary, Dr. Thomas P. Whitby, Selma, Ala.

Arizona. Next meeting Phoenix, Ariz., February 23, 24, 25. Secretary, Dr. Wm. G. Lentz, Fleming Block, Phoenix, Ariz.

Arkansas. Examination with or without diploma; applicants must attain an average of 75 per cent to pass. Examination fee not stated. No special examination granted to practitioners already in practice; no temporary licenses. Oklahoma reports interchange with Arkansas, but the secretary of Arkansas reports no interchange as yet. Examination in May at Texarkana. Secretary, A. T. McMillin, 5th and Main streets, Little Rock, Ark.

California. Examination required with or without diploma. Examination fee $25. No special examination granted to practitioners already in practice. No interchange of license with any States. Examinations, San Francisco, June 12; Los Angeles, June 19. Secretary, C. A. Herrick, Jackson, Amador Co., Cal.

Colorado. Examination granted to holders of diploma only. Examination fee $10. No special examination granted to practitioners already in practice. No interchange of license with any States. Examinations first Tuesdays of June and December, at Denver. Secretary, Dr. M. S. Fraser, 407 Mack Building, Denver, Colo.

Connecticut. The Secretary of the Connecticut Board furnished the information asked, in the form of a circular, of which the following is a copy.

Questions and answers relating to the examinations for license to Practice dentistry in Connecticut:

Ques. Can a man who has studied under a preceptor for three years take the examination? Ans. Yes.

Ques. Can a man who has been in actual practice three years or more take the examination? Ans. Yes.

Ques. Can a graduate of a reputable dental college take the examination? Ans. Yes.

Ques. Can a senior student take the examination? Ans. No.

Ques. Will the Commissioners furnish questions asked in other examinations? Ans. No.

Ques. Will the Commissioners issue a temporary permit to practice dentistry, pending the regular examination? Ans. No, not under any consideration.

Ques. Will the Commissioners grant private examinations? Ans. No.

Ques. Will the Dental Commissioners of the State of Connecticut accept a license from another State, in lieu of an examination? Ans. No.

Ques. Will Connecticut interchange licenses with other States? Ans. No, there is no provision in Connecticut's Dental Law allowing an interchange of licenses.

Examination fee, $25.

The Dental Commissioners of the State of Connecticut hereby give notice that they will meet at Hartford, on Thursday, Friday and Saturday, May 25, 26, 27, 1905, respectively, to examine applicants for license to practice dentistry, and for the transaction of any other proper business.

The practical examination in operative and prosthetic dentistry will be held Thursday, May 25, at 8:30 a. m., in Putnam Phalanx Armory, corner Haynes and Pearl streets.

The written theoretic examination will be held Friday and Saturday, May 26 and 27, at the Capitol.

All applicants should apply to the Recorder for proper blanks, and for the revised rules for conducting the examinations.

Application blanks must be carefully filled in and sworn to, and with fee, twenty-five dollars ($25), filed with the Recorder on or before May 15, 1905.

By direction of the Dental Commissioners.

J. TENNEY BARKER, Recorder,
Wallingford, Conn.

District of Columbia. Examination with or without diploma. Examination fee $10. Reciprocal interchange of license with the State of New Jersey in accordance with the provisions of the Asheville resolution. Examinations semi-annually. Secretary, Dr. W. E. Dieffenderfer, Colorado Bldg., Washington, D. C.

Idaho. Examination required with or without diploma. Examination fee $25. No special examination granted to practitioners already in practice. No in-

terchange of license with any States. Secretary, Dr. W. W. Paling, Mackey, Idaho.

Indiana. Applicants for examination must possess diploma from recognized college or must have had five years' dental practice under a reputable practitioner of this State. Examination fee $20. No special examination granted to practitioners already in practice. Reciprocal interchange of license with the State of New Jersey in accordance with the provisions of the Asheville resolution. Examinations, June 13, at Indianapolis. Applications for examinations must be made to the secretary on June 8th. Secretary, Dr. F. R. Henshaw, Middletown, Ind.

Iowa. Examination required with diploma. Examination fee $20. No special examination granted to practitioners already in practice. No interchange of license with any States. Examination May 2, 3, at Capitol Building, Des Moines. Secretary, Dr. E. D. Brower, Le Mars, Ia.

Kansas. No examination required if applicant has a diploma from a reputable college; otherwise examination required. Examination fee $10. No special examination granted to practitioners already in practice. No interchange of license with any States. Examinations, early part of May at Topeka. Secretary, Dr. M. I. Hults, Hutchinson, Kan.

Kentucky. Examination required with diploma. Examination fee $20. No special examination granted to practitioners already in practice. No interchange of license with any States. Examinations first Tuesday in June and December in Louisville. Secretary, Dr. C. R. Shacklette, 628 Fourth Avenue, Louisville Ky.

Louisiana. Examination required with diploma. Examination fee $25, payable in advance. No special examination granted to practitioners already in practice. No interchange of license with any States—Board has the matter under consideration. Examinations twice annually in New Orleans, first examination on the day following the commencement exercises of the New Orleans College of Dentistry, which this year will be on May 4th. Second examination occurs on the first Tuesday after the third Monday in October, this year, Oct. 17th. Secretary, treasurer and attorney, L. A. Hubert, 137 Carondelet street, New Orleans, La.

Maine. Examination required with or without diploma. Examination fee $20. No special examination granted to practitioners already in practice. No inter-

change of license with any States. Examination, June 21, 22. Secretary, Dr. Dana W. Fellows, Portland, Me.

Maryland. Examination required with diploma. Examination fee $10. No special examination granted to practitioners already in practice. No interchange of license with any State. Examinations occur twice annually in Baltimore. In 1905 latter part of June and first part of November. Exact dates not yet decided. Secretary F. F. Drew, 701 N. Howard street, Baltimore, Md.

Massachusetts. Examination required with or without diploma. Examination fee $20 for first examination, subsequent examinations $5. No special examination granted to practitioners already in practice. No interchange of license with any States. Examinations March 8, 9, 10; June 21, 22, 23, and October 25, 26, 27. Secretary, Dr. G. E. Mitchell, Haverhill, Mass.

Michigan. Examination required with or without diploma. Examination fee $10. Practitioners already in practice may have a special examination before any member of the Board which will enable him to practice until the next regular meeting of the Board, when a regular examination must be taken. Reciprocal interchange of license with New Jersey in accordance with the provisions of the Asheville resolution. Examinations first week in June at Ann Arbor. Secretary, Dr. C. H. Oakman, 29 State street, Detroit, Mich.

Minnesota. Diploma must be presented from a dental college in good standing or satisfactory evidence must be given of having been engaged in the practice of dentistry as early as April, 1879. Examination fee $10. No special examination granted to pratitioners already in practice, and the Board has no power to grant temporary license of any kind. No interchange of license with any States. Examinations first Tuesday in April and October. Special session held in June. Held at Dental Department of the State University at Minneapolis. Secretary, C. H. Robinson, Wabash, Minn.

Mississippi. Examination required with or without diploma. Examination fee $10. Practitioners already in practice will be granted an examination by any member of the Board, who is authorized to issue a temporary license which will be valid until the next succeeding meeting of the Board. Only one temporary license shall ever be issued to the same applicant. Secretary, Dr. P. P. Walker, Brandon, Miss.

Missouri. Examination with or without diploma. Examination fee $25. No special examination granted to practitioners already in practice. No interchange of

license with any States. Examinations second Tuesday in May and October at the Senate Chamber at Jefferson City. Secretary, S. C. A. Rubey, Clinton, Mo.

Montana. Examination with or without diploma. Examination fee $25. No special examination granted to practitioners already in practice. No interchange of license with any States. Examination June 20. Secretary, D. J. Wait, Helena, Mont.

Nebraska. Registers diploma from recognized colleges without examination, all others required to take examination. Examination fee $10; fee for registering diploma $2.50. No special examination granted to practitioners already in practice. No interchange of license with any States. Examinations—no special date, but are set when application is made. Secretary, Dr. D. A. Meese, Auburn, Nebr.

Nevada. Examination required if without diploma. Examination fee $10. No special examination granted to practitioners already in practice. No interchange of license with any States. Secretary, C. A. Coffin, Reno, Nevada.

New Hampshire. Examination required with or without diploma. Examination fee $10. No special examination granted to practitioners already in practice except by agreement of the full Board. No interchange of license with any States. Examinations, June 13, 14, 15 at the New Manchester House, Manchester. Secretary, A. J. Sawyer, Manchester, N. H.

New Jersey. Applicant must be a graduate of a reputable dental college and hold a high school diploma or a certificate from the State superintendent of public instruction, Professor Baxter, Trenton, N. J. Examination fee, $25. Reciprocal interchange of license with Utah, Tennessee, Indiana, Michigan, in accordance with the provisions of the Asheville resolution, and by special agreement with New York. Examinations July 11, 12, 13, and December 12, 13, 14. Theoretical branches in the Assembly Chamber, Trenton, N. J. Practical operative work at the office of C. S. Stockton, 7 Central avenue, Newark, on a date assigned by him. Practical prosthetic work at the office of Dr. A. Irwin, 425 Cooper street, Camden, N. J., on a date assigned by him. Secretary, Dr. Charles A. Meeker, 29 Fulton street, Newark, N. J.

New York. Diploma from a registered school is necessary for admission to the dental licensing examination. Applicants who have had six years' practice in dentistry may on unanimous recommendation of the Board receive a license to practice in this State provided they meet the necessary professional and preliminary requirements. Examination fee $25. Reciprocal interchange of license with New Jersey. Examinations, May 16, 17, 18, 19; June 20, 21, 22, 23; September 26, 27, 28, 29.

Chief, Charles F. Wheelock, Examinations Division, New York State Education Department, Albany, N. Y.

North Carolina. Examination with or without diploma. Examination fee $10. No special examination granted to practitioners already in practice. No interchange of license with other States. Examination—June 26, 27, 28 at Waynesville. Secretary, R. H. Jones, Winston-Salem, N. C.

North Dakota. Examination required with or without diploma. Examination fee $10; additional fee for license, $5. No special examination granted to practitioners already in practice. No interchange of license with any States. Examination, second Tuesday in July. Secretary, H. L. Starling, Fargo, N. D.

Ohio. The Board will register without examination all graduates of the Ohio colleges who make proper application and pay the required fee of $10 prior to the June, 1905, session of the Board; all other applications must be graduates and pass examination before they can practice legally in Ohio. Examination fee $20; registration fee $10. There is an exemption clause which permits the Board to register a person who has been in practice in the State of Ohio continuously since January 1, 1903; this must be verified by evidence. Examinations for 1905 will be held June 27, 28, 29 and November 28, 29, 30, in Columbus. Application should be filed with the secretary 10 days prior to examination. Secretary H. C. Brown, 185 East State street, Columbus, Ohio.

Oklahoma. Examination required if without diploma. Examination fee $10. No special examination granted to practitioners already in practice. Reciprocal interchange of license with Arkansas. Examination—May 10. Secretary, A. C. Hixon, Guthrie, Okla.

Oregon. Examination required with diploma. Examination fee $10. No special examination granted to practitioners already in practice. No interchange of license with any States. Examination May 8th; also in November in Portland. Secretary, O. D. Ireland, 614 Dekum Building, Portland, Ore.

Pennsylvania. Examination required with diploma. Examination fee $15. No special examination granted to practitioners already in practice. Reciprocal interchange of license with New York. Examinations in June and December, 1905. Secretary, C. N. Schaeffer, Harrisburg, Pa.

Rhode Island. Examination in all cases. Examination fee $20. No special examination granted to practitioners already in practice. In regard to interchange the Board has recommended an amendment to the law giving the board discretion. Examination June 27, 28, 29, Providence. Secretary, P. J. Heffern, 255 Main street, Pawtucket, R. I.

South Dakota. Applicants for examination must have diploma or must have had three years' practice immediately preceding examination. Examination fee $10; license

fee $5. No special examination granted to practitioners already in practice. No interchange of license with any States. Examination, July 11, Sioux Falls. Secretary, G. W. Collins, Vermillion, S. D.

Tennessee. Registers diploma without examination and examines all others. Examination fee $5. No special examination granted to practitioners already in practice. New Jersey reports interchange with Tennessee, but the secretary of Tennessee reports no interchange as yet. Examination, Memphis, Feb. 21, 22, 23. Secretary, F. A. Shotwell, Rogersville, Tenn.

Texas. Registers diplomas and examines all others. Examination fee $10. Temporary licenses granted to holders of diplomas between meetings of the Board; good until the following meeting. Temporary licenses granted to others after an examination by any member of the Board. Good until the next meeting of the Board. Fee for temporary license $2. Examination, May, 1905. Secretary, C. C. Weaver, Hillsboro, Texas.

Utah. Examination required with or without diploma. Examination fee $25. No special examinations granted to practitioners already in practice. Reciprocal interchange of license with New Jersey in accordance with the provisions of the Asheville resolution. Examination not yet fixed. Usually April and October. Secretary, H. W. Davis, 511-513 McCormick Block, Salt Lake City, Utah.

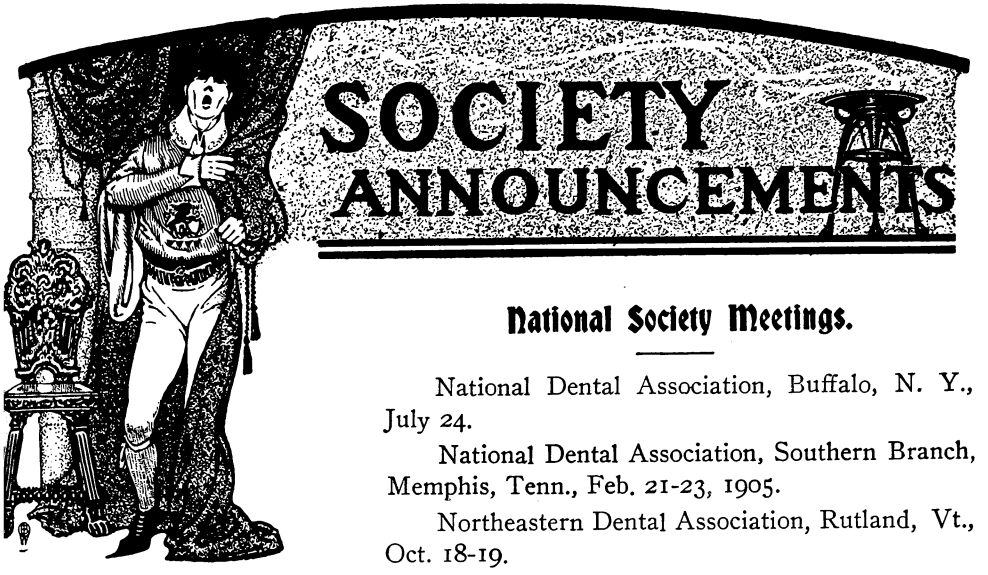
Vermont. Examination required in all cases. Examination fee, $25. Secretary, G. F. Cheney, St. Johnsbury, Vt.

Virginia. Examination required with or without diploma. Examination fee $10. No special examination granted to practitioners already in practice. No interchange of license with any States. Examination second Tuesday in June, at Richmond, Va. Secretary, R. H. Walker, Norfolk, Va.

Washington. Examination required with diploma. Examination fee $25. No special examination granted to practitioners already in practice. No interchange of license with any States. Examinations in May and November; this year May 22, at Vancouver. Secretary, W. A. Fishburn, Ellensburg, Wash.

West Virginia. Examination required with or without diploma. Examination fee $10. No special examination granted to practitioners already in practice. No interchange of license with any States. Examination, first Wednesday in June. Secretary, H. M. Van Voorhis, Morgantown, W. Va.

Wisconsin. Examination required with diploma. Examination fee $10. Dentists who have practised for four years or have been apprenticed to a reputable dentist for five years are entitled to examinations. No special examination granted to practitioners already in practice. No interchange of license with any States. Examination in June. Secretary, J. J. Wright, 1218 Welles Building, Milwaukee, Wis.



National Society Meetings.

National Dental Association, Buffalo, N. Y., July 24.

National Dental Association, Southern Branch, Memphis, Tenn., Feb. 21-23, 1905.

Northeastern Dental Association, Rutland, Vt., Oct. 18-19.

State Society Meetings.

Connecticut State Dental Association, New Haven, April 18-19.
Delaware State Dental Society, February 1.
Florida State Dental Society, La Breeze Beach, May 31.
Illinois State Dental Society, Moline, May 9, 10, 11.
Indiana State Dental Association, Detroit, Mich.
Iowa State Dental Society, Des Moines, May 2, 3, 4.
Kentucky Dental Association, Lexington, May 15, 16.
Maine Dental Society, Portland, July 18, 19, 20.
Massachusetts Dental Society, Boston, June 7, 8.
Minnesota State Dental Association, Minneapolis, June 1, 2, 3.
Montana State Dental Society, Butte, February 20, 21, 22.
New Jersey State Dental Society, Asbury Park, July 19, 20, 21.
New York State Dental Society, Albany, May 12, 13.
Pennsylvania State Dental Society, Philadelphia, June 27, 28, 29.
South Dakota State Dental Society, Mitchell, June.
Tennessee Dental Association, February 21-23.
Vermont State Dental Society, Rutland, March 15, 17.
Wisconsin State Dental Society, Oshkosh, July 18, 19, 20.

Joint Meeting.

The Southern Branch of the National Dental Association Meets with the Tennessee State Dental Association at Memphis, Tenn., February 21st to 24th, 1905.

Below is a partial list of the papers and clinics:

Dr. Jules J. Sarrazin, New Orleans, La., chairman, report.

Dr. S. D. Brabson, Knoxville, Tenn. "Prophylaxis in Dentistry," discussion opened by Dr. N. N. Vann, Atalla, Ala., followed by Dr. Robin Adair.

Dr. Robin Adair, Atlanta, Ga., A Successful Introduction of Oral Prophylaxis Treatment into Practice. Discussion opened by Dr. N. N. Vann, Atalla, Ala., followed by Dr. B. D. Brabson, Knoxville, Tenn.

Dr. R. Boyd Bayle, chairman, report.

Dr. August F. Sonntag, chairman, report.

Dr. M. F. Fennily, Washington, D. C., report.

Dr. E. P. Beadles, Danville, Va., "A Few Points in Inlay Work."

Dr. S. D. Ronebo, Marietta, Ga., "Gold and Tin, and Amalgam and Gold at Cervical Margin as an Excellent Material for Saving Teeth."

Dr. T. T. Moore, Columbia, S. C., "Insulating Deep Seated Cavities."

Dr. B. Holly Smith, Baltimore, Md., title not given.

Dr. J. E. Chase, Ocala, Fla., chairman, report.

Dr. Geo. S. Vann, Gadsden, Ala., chairman, report.

Dr. F. M. Milam, Little Rock, Ark., "Orthodontia."

Dr. W. E. Grant, Louisville, Ky., "Orthodontia, Surgical and Mechanical."

Dr. J. Lewis Walker, Norfolk, Va., "Orthodontia, Successes and Failures."

Dr. H. H. Johnson, Macon, Ga., chairman, report.

Dr. R. K. Luckie, Holly Springs, Miss., chairman, report.

Dr. Geo. W. Dick, Sumter, S. C., chairman, report.

Dr. Burton Lee Thorpe, St. Louis, Mo., "The Master of Early Dentistry with Lantern-Slide Pictures?"

Dr. Arthur Hynes Fleming, Louisburg, N. C., "The Problem of Education."

Dr. W. C. Mason, Tampa, Fla., "Dental Education."

Dr. A. W. Meyer, Chattanooga, Tenn., "Diseases of the Antrum, Practical Case."

Dr. J. C. Bogue, Harriman, Tenn. "The Education of Present and Prospective Dental Patients."

Clinics.

Dr. Thos. P. Hinman, chairman, Atlanta, Ga., Dr. J. L. Newborn, Memphis, Tenn.

Dr. Truman W. Brophy, Chicago, Ill., "Surgical Operation."

Dr. F. E. Roach, "Showing New Attachment for Partial Plate and Removable Bridge."

Dr. D. O. N. LeCron, St. Louis, Mo., "Method of Ascertaining True Fusing of Porcelain."

Dr. Burton Lee Thorpe, St. Louis, Mo., title not given.

Dr. L. M. Cowardin, Richmond, Va., "Appliance for Correction of Cross Teeth (Orthodontia)."

Dr. F. L. Wood, Roanoke, Va., title not given.

Dr. T. T. Moore, Columbia, S. C., "Manner of Insulating Deep Seated Cavities."

Dr. A. M. Jackson, Macon, Ga., title not given.

Dr. Joseph Proughton, Atlanta, Ga., "Articulated Piece of Bridge Work."

Dr. George A. Loque, New Orleans, La., "A Full Porcelain Crown and Bridge Eliminating all Baking."

Dr. W. O. Tolbot, New Orleans, La., "Taking of Plaster Impressions and Making Casts for Orthodontia Work."

Dr. W. M. Slack, Memphis, Tenn., "Demonstrating Use of Vernon Gold."

Dr. J. A. Gardner, Memphis, Tenn. "Cavity preparation Extension for Prevention."

Dr. J. W. Peete, Memphis, Tenn., "Orthodontia."

Dr. C. E. Hines, Memphis, Tenn., "Porcelain Inlay."

Dr. J. W. Hunt, Memphis, Tenn., "Gold Inlay in Frail Incisors."

Dr. C. H. Taylor, Memphis, Tenn., "Porcelain Without Platinum Base."

Dr. W. W. Brooks, Memphis, Tenn., "Instrumentation in Phagedenic Pericementitis."

Dr. C. A. Tavel, Memphis, Tenn., "Combination Filling Finished With Vernon Gold."

Dr. Eugene A. Johnson, "Exhibition of Apparatus for Extracting of Teeth and Minor Surgical Operations."

Dr. W. D. Gaither, "Method of Attaching Lost Incisor to Incisor or Cuspid by Means of Doweled Gold Inlay."

Dr. H. M. Pretymon, Covington, Ky., "Gold Bridge, Demonstrating Original Method of Securing Perfect Occlusion."

Dr. J. L. Newborn, Memphis, Tenn., "Members Reinforcing Mallet."

Dr. W. C. Gillespie, Nashville, Tenn., "Abby's soft foil filling."

Dr. Walter White, "Dentin Injection With Cocaine and Mounting Davis Crown."

Dr. F. E. Buck, Jacksonville, Fla., "Table Clinic Showing New Flask and Rubber Warmer and Method of Applying Tin Foil to Rubber."

Dr. Richards, Knoxville, Tenn., "Practical demonstration of Inlay—Using a New Apparatus."

Dr. J. C. Bogue, Harriman, Tenn., "Capon Porcelain Front Crown."

From the interest manifested this promises to be the largest meeting in the history of the two Associations. The railroads have given a rate of one and one-third fare on the certificate plan. The meeting will be held at the Hotel Gayoso, rooms $1.50 and $2 per day, European plan. Accommodations can be had at other hotels on the American plan $2 per day. The exhibits of the various supply houses will be exceptionally attractive, embracing everything of interest to dental profession.

CHAS. A. BLAND,
Chairman Programme Committee, Charlotte, N. C.

New York State Dental Society.

The next meeting of the Dental Society of the State of New York will be held in Albany, N. Y., May 12 and 13, 1905. We expect a large attendance. Papers will be read by Dr. E. S. Darby, Philadelphia; Dr. S. G. Perry, New York; Drs. J. P. Buckley, W. T. Reeves, and A. H. Peck, Chicago. The clinic committee of which Dr. F. W. Proseus is chairman, is hard at work arranging an interesting programme.

114 E. 60th street, New York W. C. DEANE, *Sec'y.*

National Association of Dental Examiners.

The annual meeting of the National Association of Dental Examiners will be held at Buffalo, N. Y., commencing 10 a. m., July 24, and continuing until adjournment. The hotel and assembly rooms for holding session will be announced later. Arrangements for members in the East have already been made with the Lackawanna R. R., for reduced excursion rates on fast *de luxe* trains leaving New York 10 a. m., 6:10 p. m., 8:45 p. m., and 2 a. m.

29 Fulton street, Newark, N. J. CHARLES A. MEEKER, D.D.S., *Sec'y.*

Golden Anniversary Banquet.

On Feb. 21, 1905, a golden anniversary banquet will be tendered by the dentists of New Orleans to Dr. Geo. J. Friedrichs who graduated in dentistry, Feb. 21, 1855.

Yours respectfully,
L. D. ARCHINARD,
For Com. of Arrangements.